MFJ 2023 Ham Catalog

the World Leader in Amateur Radio Accessories!

For your nearest dealer or to order, call 800-647-1800

MFJ ENTERPRISES
300 Industrial Park Rd
Starkville, MS 39759
Phone: (662) 323-5869; 8-4:30 CST, Monday-Friday. **Fax:** (662) 323-6551
E-mail: *mfjcustserv@mfjenterprises.com*
Tech Support: 662-323-0549

MFJ ENTERPRISES, INC. 1972 50TH Anniversary 2022 STARKVILLE, MS

No Matter What™ Warranty

Every MFJ product is protected by MFJ's famous one year *No Matter What™* limited warranty. We will repair or replace your MFJ product *no matter what* (at our option) for one full year.

Prices and specifications are subject to change without notice or obligation. MFJ will not be held responsible for printing errors.

Visit ...www.mfjenterprises.com PROUDLY made in USA

Born in the U.S.A.!

Buy American! MFJ automatic tuners are built on American soil by American workers right here in Starkville, Mississippi USA.

MFJ IntelliTuner ™ Automatic Tuners

The MFJ-998 Legal Limit IntelliTuner™ lets you tune any antenna automatically -- ultra fast and handles a full 1500 Watts SSB/CW and Digital!

It's a comprehensive automatic *antenna tuning center* complete with SWR/Watt-meter, antenna switch for two antennas, wire connection and 4:1 current balun for balanced lines.

MFJ-998 ***Full Digital Power!***

MFJ's exclusive *IntelliTuner*™, *Adaptive Search*™ and *Instant Recall*™ algorithms give you *ultra fast* automatic tuning with over 20,000 *VirtualAntenna*™ Memories. You get a highly efficient L-network, 12-1600 ohm matching at 1500 Watts SSB/CW and digital, 1.8-30 MHz coverage, Cross-Needle *and* digital meters, audio SWR meter, and *backlit* LCD. MFJ-998 automatically tunes for minimum SWR and remembers your frequency and tuner settings. The next time you operate on that frequency and antenna, these tuner settings are instantly restored and *you're ready to operate in milliseconds!* Use 12-15 VDC/1 amp or 110 VAC with MFJ-1316, **$39.95**. 13Wx4Hx15D". Radio interface cables. See ***www.mfjenterprises.com***

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600 Watt MFJ Automatic Antenna Tuner

MFJ-994B. Like MFJ-993B but handles 600 Watts SSB/ CW/Digital, matches 12-800 Ohms. 10,000 memories. Doesn't have LCD, antenna switch, balun, audio SWR meter. 10Wx2¼Hx9D inches.

More hams use MFJ tuners than all other tuners in the world!

World's most advanced Automatic Antenna Tuners feature world renowned MFJ AdaptiveSearch™ and AutomaticRecall™ algorithms -- world's fastest ultra-wide range tuning. Nine World Class models! Choose your features: Digital/Analog/Audio SWR-Wattmeter, Antenna Switch, Balun, Radio Interface, Digital frequency readout, Remoteable, Coax/Balanced Lines/Wire Tuning, Field Upgradeable . . . Made in the U.S.A.!

300/150 Watt *Tuner*

300W (6-1600) 150W (6-3200 Ohms)

MFJ-993B

Full Digital Power!

Automatically tunes unbalanced/balanced antennas, ultra fast and has 20,000 memories. Has antenna switch, efficient L-network, select 300 Watts (6-1600 Ohms or 150W 6-3200 Ohms. 1.8-30 MHz, 4:1 balun, backlit LCD.

300 Watt *Extra* Wide Range

SWR/Wattmeter, 10000 VA Memories

Extra *wide matching range at less cost.* MFJ-991B ***Full Digital Power!***

MFJ's *exclusive* dual power level: 300 Watts for 6-1600 Ohms; 150Watts for 6-3200 Ohms. Cross-Needle SWR/Wattmeter.

200 Watt ... Compact

Digital Meter, Ant Switch, Wide Range

MFJ-929 ***Full Digital Power!***

World's fastest compact auto tuner uses MFJ *Adaptive Search*™ and *InstantRecall*™ algorithms. 132,072 tuning solutions instantly match virtually any antenna with near perfect SWR. Bright LCD Display.

200 Watt MightyMite ™

Matches IC-706, FT-857D, TS-50S

MFJ-939KIY ***Full Digital Power!***

200W SSB/CW and Digital. Low-profile automatic tuner is great for those tiny new rigs. Just tune and talk! Includes interface cable, 2-year warranty. 6½Wx2⅞Hx8⅜D".

MFJ Remote AutoTuners

Full Digital Power!

Get greatly reduced losses and high efficiencies with long coax runs and high SWR antennas.

MFJ-926B. 200W.
MFJ-993BRT. 300W.
MFJ-994BRT. 600W.
MFJ-998RT. 1.5 kW.

G5RV Antennas

Cover 160-10 Meters with antenna tuner. 102 ft. long. Use as inverted vee or sloper, 160 Meters as Marconi. 1500 Watts. Superstrong fiberglass center/ feedpoint insulators. *Glazed ceramic* end insulators.

MFJ-1778

MFJ-1778M. G5RVJR. 52'. 40-10M.

MFJ Antenna Tuners

New, Improved MFJ-989D 1500 Watt Legal Limit Antenna Tuner

World's most popular 1500W Legal Limit Tuner just got better -- *much better* -- gives you more for your money!

New, Improved MFJ-989D legal limit antenna tuner gives you beter efficiency, lower losses and a new true peak reading meter. It easily handles full 1500 Watts SSB/CW, 1.8 to 30 MHz, including MARS/WARC bands.

New, dual 500 pF air variable capacitors give you twice the capacitance for more efficient operation on 160/80 Meters.

New, improved *AirCore*™ Roller Inductor gives you lower losses, higher Q and handles more power more efficiently.

New, *TrueActive*™ peak reading Cross-Needle SWR/Wattmeter lets you read true peak power on all modes.

MFJ-989D

New, high voltage current balun lets you tune balanced lines at high power with no worries.

New, crank knob lets you reset your roller inductor quickly, smoothly and accurately.

New, larger 2-inch diameter capacitor knobs with easy-to-see dials make tuning much easier.

New, cabinet maintains components' high-Q. Generous air vents keep components cool. $12^{7}/_{8}$Wx6Hx$11^{5}/_{8}$D inches.

Includes six position ceramic antenna switch, 50 Ohm dummy load, indestructible multi-color Lexan front panel with detailed logging scales and legends.

The MFJ-989D uses the superb time-tested T-Network. It has the widest matching range and is the easiest to use of all matching networks. Now with MFJ's new 500 pF air variable capacitors and new low loss roller inductor, it easily handles higher power much more efficiently.

***No Matter What*™ Warranty**

Every MFJ tuner is protected by MFJ's famous one year *No Matter What*™ limited warranty. We will repair or replace your MFJ tuner (at our option) for a full year.

More hams use MFJ antenna tuners than all others in the world!

MFJ-986 Two Knob *Differential-T*™

MFJ-986

Two knob tuning (differential capacitor and *AirCore*™ roller inductor) makes tuning foolproof and easier than ever. Gives minimum SWR at only one setting. Handles 3 kW PEP SSB amplifier input power (1.5 kW output). Gear-driven turns counter, lighted peak/average Cross-Needle SWR/Watt-meter, antenna switch, balun, 1.8 to 30 MHz. 15Wx$4^{1}/_{2}$Hx$10^{3}/_{4}$D".

MFJ-962D compact kW Tuner

MFJ-962D

A few more dollars steps you up to a kW tuner for an amp later. Handles 1.5 kW PEP/SSB amplifier input power (800W output). Ideal for Ameritron's AL-811H. *AirCore*™ roller inductor, gear-driven turns counter, peak/avg lighted Cross-needle SWR/Watt-meter, antenna switch, balun, Lexan front, 1.8 to 30 MHz. $10^{7}/_{8}$Wx$14^{1}/_{2}$Hx$10^{3}/_{4}$D".

MFJ-969 300W Roller Inductor Tuner

MFJ-969

Superb, *AirCore*™ roller inductor. Covers 6 Meters through 160 Meters! 300 Watts PEP SSB. Active true peak reading lighted Cross-Needle SWR/WAttmeter, *QRM-Free PreTune*™ antenna switch, dummy load, 4:1 balun, Lexan front. $10^{1}/_{2}$Wx$3^{1}/_{2}$Hx$9^{1}/_{2}$D".

MFJ-949E deluxe 300 Watt Tuner

MFJ-949E

More hams use MFJ-949s than any other antenna tuner in the world! Handles 300 Watts, full 1.8-30 MHz coverage, custom inductor switch, 1000V tuning capacitors, full size peak/average lighted Cross-Needle SWR/Wattmeter, 8 position antenna switch, dummy load, *QRM-Free PreTune*™, scratch proof Lexan front panel. $10^{5}/_{8}$Wx$3^{1}/_{2}$Hx7D". **MFJ-948.** Econ-omy version of MFJ-949E, less dummy load.

MFJ-941E Super Value Tuner

MFJ-941E

Most for your money! 300 Watts PEP, 1.8-30 MHz, lighted Cross-Needle SWR/Wattmeter, 8-position antenna switch, 4:1 balun, 1000 Volt capacitors, Lexan front panel. $10^{1}/_{2}$Wx$2^{1}/_{2}$Hx7D". MFJ-941EK. Tuner Kit -- *Build your own!*

MFJ-945E HF/6M mobile Tuner

MFJ-945E

Extends your mobile antenna bandwidth so you don't have to stop, go outside and adjust your antenna. Tiny 8Wx2Hx6D". Lighted Cross-Needle SWR/Wattmeter, Lamp and Bypass switches. Covers 1.8-30 MHz and 6-Meters. 300W PEP. **MFJ-20**, mobile mount.

MFJ-971 portable/QRP Tuner

MFJ-971

Tunes coax, balanced lines, random wire, 1.8-30 MHz. Cross-Needle Meter, SWR, 30/300 or 6 Watt QRP ranges. Matches popular MFJ rigs. Tiny $6^{1}/_{2}$Wx$2^{1}/_{2}$Hx6D".

MFJ-901B smallest Versa Tuner

MFJ-901B

MFJ's smallest (5Wx2Hx6D") and most affordable wide range 200 Watt PEP Versa Tuner. Covers 1.8 to 30 MHz. Great for matching solid state rigs to linear amps.

MFJ-902B Tiny Travel Tuner

MFJ-902B

Tiny $4^{1}/_{2}$Wx$2^{1}/_{4}$Hx3D", full 150 Watts, 80-6 Meters, has tuner bypass switch for coax/random wire. **MFJ-904H.** Same but adds Cross-needle SWR/Wattmeter and 4:1 balun for balanced lines. $7^{1}/_{4}$Wx$2^{3}/_{4}$Hx$2^{3}/_{4}$D".

MFJ-16010 random wire Tuner

MFJ-16010

Operate all bands anywhere with MFJ's reversible L-network. Turns random wire into powerful transmitting antennas. 1.8-30 MHz. 200 Watts PEP. Super tiny measures just 4Wx2Hx3D".

MFJ-9201 *QRPocket*™ Tuner

MFJ-9201

80-10 Meters, 25 Watts. 12 position inductor, tune/bypass switch, wide-range T-network. BNCs. 4Wx$2^{5}/_{8}$Hx$1^{1}/_{2}$D".

MFJ-921/924 VHF/UHF Tuners

MFJ-921/924

MFJ-921 covers 2 Meters/220 MHz. **MFJ-924** covers 440 MHz. SWR/Wattmeter. 8Wx$2^{1}/_{2}$Hx3D".

MFJ-931 Artificial RF Ground

MFJ-931,

Eliminates RF hot spots, RF feedback, TVI/RFI, weak signals caused by poor RF grounding. Creates artificial RF ground or electrically places far away RF ground directly at rig. **MFJ-934.** Artificial ground/300 Watt Tuner/Cross-Needle SWR/Wattmeter.

Antenna Tuner/Artificial Ground

MFJ-934

MFJ-934 is unique because it has a built-in artificial ground. A ground matching knob lets you switch in inductance to bring an attached wire to a low impedance current point to form an artificial ground. A push button lets you use the Cross-Needle Meter to monitor for maximum ground current. With an artificial ground to work against, you'll be surprised to see how well a random wire can work.

You get a 300 Watt full featured antenna tuner that covers 1.8-30 MHz. Lighted CrossNeedle meter reads SWR/Forward/ Reflected power at-a-glance. 4:1 balun for balanced lines. Features efficient airwound inductor, high current/voltage 12-position inductor switch and two 1000 volt air-variable capacitors. Tunes all antennas and feedlines including random wire, coax and balanced lines. 10 5/8Wx3 1/2Hx8D inches.

MFJ Artificial RF Ground

MFJ-931

Create an artificial ground with this MFJ-931! It effectively places your rig near actual earth ground potential even if your rig is on the second floor or higher with no earth ground possible! It electrically places a far away RF ground at your rig.

How's your RF ground? Do you have RF "hot spots" that "bite" you when you transmit? Do you have RF feedback that causes your rig to quit working on some bands? Do you have TVI/RFI that makes your neighbors hard to live with? Do you get weak signal reports because of extreme ground losses or radiation pattern distortion?

These problems could be caused by poor RF grounding, especially if your rig is on a second floor with no ground at all. Even if you have a good ground, a long connection wire can ruin its effectiveness by isolating true RF ground from your rig. ***Continued right...***

6-Meter Antenna Tuners

MFJ-906. Low SWR with most any 6-Meter oax antenna. Get more power out of your rig and into your antenna for more DX. Lighted Cross-Needle SWR/Wattmeter shows SWR, forward, reflected power, 300/60, 30/6 Watt ranges. MFJ-1312D for meter lamp. Built-in bypass, 100 Watts FM, 200W SSB PEP. 50-60 MHz. 8Wx2 1/2Hx3D".

MFJ-903. Like MFJ-906. Less meter/bypass. 5Wx2 1/2Hx3D".

Continued . . . **MFJ-931** creates an artificial ground! It resonates a random length of wire thrown along the floor and produces a tuned counterpoise. This artificial ground effectively places your rig near actual earth ground potential with no earth ground possible. Re-duces the electrical length of the ground connection wire to virtually zero by tuning out its reactance. MFJ-931 connects between your rig and a random length of wire or a connecting ground wire. It's tuned for maximum ground current using the built-in RF ammeter. 1.8 to 30 MHz. 7 1/2Wx3 1/2H x7D in. RF tight aluminum cabinet.

MFJ-941EK Antenna Tuner Kit

MFJ-941EK

Ever wish to build your own? But then you realize the time and effort to put one together and find out it is just not worth it. MFJ has now made it fun and economical to build and test your very own MFJ antenna tuner. You get the popular MFJ-941E, all of its guts totally apart so you can build it yourself. The finished kit features 1.8-30 MHz coverage, 300 Watts power handling, 1.5 inch Cross-needle SWR/Wattmeter, 1000 Volt capacitors, Lexan front panel decal, all aluminum chassis and cover. All knobs, hardware, components and switches are here to build your very own MFJ tuner!!! You don't have to punch a clock, but you don't get an MFJ paycheck either, just the joy and pride of building your own.

HF Random Wire Antenna Tuner

MFJ-16010

Operate all HF bands 1.8-30 MHz -- from anywhere with any transceiver -- using a single random wire and MFJ's *Random Wire Tuner*.

It's small enough to carry in your hip pocket, but handles 200 watts output power. It's a great tuner to take along with you on your next POTA or SOTA activation. Or throw it in your briefcase for your next business trip.

Matches high or low impedance loads by interchanging input and output.

SO-239 connectors for both. Measures a compact 3 1/2Wx2 1/4Hx5 1/4D inches.

Coax Cutter/Stripper tools

MFJ-7402. 9". Cuts cable without crushing it. Aluminum up to 4/0 gauge, copper up to 2/0 gauge stranded. Car-bon steel, hardened blade oxide finish.

MFJ-7404. *2-Blades Coaxial Cable Stripper* makes it easy to strip coax perfectly every time. Strips outer jacket and inside insulation at same time. Adjustable blades. For RG8, RG11, RG213 cable.

Pre-made Premium Coax Patch Cables

Weather resistant

- 50-Ohm coax patch cables
- Pre-soldered PL-259 connectors.
- Select length and choose from RG-58, RG-8X or RG-213 type.
- **Made in U.S.A.**

N-models are terminated with the N-type connectors.

MFJ-5803BJ
RG-58
Balun Jumper
3 feet
with PL-259
connectors.

length	RG-58	RG-8X	RG-213 (H)
3 ft.	MFJ-5803	MFJ-5803X	MFJ-5803H MFJ-5803NH
6 ft.	**MFJ-5806**	**MFJ-5806X**	**MFJ-5806H** **MFJ-5806NH**
9 ft.	MFJ-5809	MFJ-5809X	MFJ-5809H
12 ft.	**MFJ-5812**	**MFJ-5812X**	**MFJ-5812H**
18 ft.	MFJ-5818	MFJ-5818X	MFJ-5818H
25 ft.	**MFJ-5825**	**MFJ-5825X**	**MFJ-5825H**
50 ft.	MFJ-5850	MFJ-5850X	MFJ-5850H
100 ft.	**MFJ-58100**	**MFJ-58100X**	**MFJ-58100H**
50 ft.	MFJ-5850E	RG-58, 50 ft. open end, PL-259 on one end.	

MFJ tiny Travel Tuners

MFJ brings you the world's smallest full power 150 Watt 80-6 Meter Antenna Tuner. Extra wide matching range lets you tune nearly any antenna.

It's no toy, its got guts! Built with real *air* variable capacitors (600 Volt, 322 pF) and *three* stacked powder iron toroids to handle real power -- not just QRP. Bypass switch lets you bypass tuner when you don't need it.

You can use nearly any transceiver at full power with nearly any coax fed or random wire antenna for portable, home or mobile operation. It's perfect for compact rigs like Icom IC-706MKIIG, Yaesu FT-100D, Kenwood TS-50, QRP rigs and others with a built-in SWR meter.

Operate anywhere, anytime with a quick easy set-up! Tune out SWR on your mobile whip from inside your car. Operate in your apartment with a wall-to-wall antenna or a motel room with a wire dropped from a window or from a mountain with a wire over a tree limb.

MFJ-902B

It's perfect for DXpeditions or field day -- packs up quickly and takes up little space. Helps you be prepared for emergencies -- this tuner and a wire antenna can be packed and set-up just about anywhere.

MFJ-902B is so small and handy, you'll rely on it wherever you go -- easy to pack away in your briefcase, suitcase, backpack, glove compartment or desk drawer. Tiny enough to slide in your hip pocket! 4½Wx2¼Hx2¾D in.

MFJ Tiny Tuner with 4:1 Balun

MFJ-902H. Similar to MFJ-902 but has a *4:1 balun* with binding posts for tuning balanced line antennas. 5¾Wx2¼Hx2 ¾D inches.

Tiny Tuner with Cross-Needle SWR/Wattmeter and 4:1 balun

MFJ-904H. Like MFJ-902 but has a large 1.5 inch Cross-Needle SWR/Wattmeter and 4:1 balun for tuning balanced lines. 7¼Hx2¼Hx2¾D in.

MFJ-904. Like MFJ-904H. Has *Cross-Needle SWR/Wattmeter,* but no balun. 7¼Hx2¼Hx2¾D inches.

144/220 or 440 MHz Tuner

MFJ-921. Dual Band VHF tuner covers 2 Meters and 220 MHz. Built-in SWR/Wattmeter measures SWR in 2 power ranges: 300/30 Watts. Meter is usable for both 144 MHz and 220 MHz. Low SWR with practically any antenna. Handles 200W. Matches a wide range of impedances for both mobile/base operation. SO-239 input/output connectors, wing nut post ground. Black aluminum, 8x2½x3".

MFJ-924. Like MFJ-921, covers 440 MHz band only.

Dual Band 144/440 Tuner

MFJ-923. Covers the complete 144 MHz and 440 MHz frequency ranges. Built-in Cross-Needle SWR/Wattmeter measures SWR, forward and reflected power in two ranges: 300/30 Watts. Meter is usable for both bands. Handles 200 Watts. Matches a wide range of impedances for both mobile and base operation. Single input/output SO-239s. Wing nut post ground, black aluminum cabinet, compact at 9½Wx4½Hx2⅝D".

Ferrite RFI Suppression Chokes

Remove RF on cables and wires to your station.

Isolate RFI on feedlines to your station. 2-piece design, snap and lock securely around cable.

Install end-to-end along rigid cable or loop multiple turns with smaller soft cable. Select four sizes: .25 inch ID to .75 inch ID.

Model #
MFJ-700A.
MFJ-700B.
MFJ-700C.
MFJ-700D.

RF Bypass Switches

MFJ-1705
300 Watts

MFJ-1705H
1500 Watts

Connect your antenna and transceiver to this MFJ *RF Bypass Switch* and you can switch in or bypass your antenna tuner, linear amplifier, preamp, wattmeter or other device -- switch in and bypass *any* coax fed device with PL-259 UHF connectors. DC to 60 MHz. SO-239 connectors. 50-75 Ohms. 300W and 1500 Watt models. 3Wx1½Hx2½D inches.

Variable RF Transformer

MFJ-907

Multi-tap Variable RF Transformer matches low impedance (2-50 Ohms) of mobile antennas (ham sticks, screwdrivers, etc.) to 50 Ohm transceiver. 11 impedance ratios. Use in reverse to transform high impedances to 50 Ohms. Handles 1000 Watts. 1.8 to 30 MHz. SO-239s.

Mobile Antenna L-Matcher

Matches HF mobile antennas (ham sticks, screwdrivers, etc.) 10-80 Meters by adding **L** (*inductance)* at the antenna feedpoint to ground to form L-network with antenna. 11 values of switchable inductance, .2 uH-12 uH. Handles 200 Watts. SO-239 connectors. Compact 4Wx3¾Hx1¾D".

MFJ-908

Mobile Antenna Matcher

MFJ-910

Matches HF mobile antennas 10 through 80 Meters. Select five values of capacitance 120-470 pF to add at antenna feed point to ground to form L-network with antenna. Gives you more power out. Handles 300 Watts. SO-239 connectors. Tiny 3½Wx3Hx1¼D inches.

Mobile Ant. C-Matcher

Matches HF mobile antennas (ham sticks, screwdrivers, etc.) 10-80 Meters by adding **C** (*capacitance)* at the antenna feedpoint to ground to form an L-network with your antenna. 11 values of switchable capacitance 30 pF-2000 pF. Handles 600 Watts. SO-239 connectors. 3½Wx3Hx1¼D inches.

MFJ-909

AutoTuner Extender ™

MFJ-914

Does your rig's automatic tuner have limited matching range? MFJ-914 transforms your antenna impedance by as much as 10 times! Puts nearly any antenna into the range of your automatic or manual tuner. Covers 160-10 Meters, handles 300 Watts, has bypass position. Measures a compact 6Wx4Hx2½D inches.

RF Sampling Module

This RF sampler allows you to safely and accurately monitor output signals from transmitters and other high-power RF generators. Sampled output port is DC isolated from the RF source, attenuated by -50 dB and fed to a 50 Ohm BNC output. Handles 600 Watts. SO-239s for input/output.

MFJ-806

MFJ-806N
with N connectors

MFJ Balanced Line Antenna Tuners

MFJ-974HB

MFJ-974HB is a *fully balanced* true balanced line antenna tuner. It gives you *superb* current balance throughout its very wide matching range.

For decades, the Johnson Matchbox has been the standard of comparison for balanced line tuners. But, it had a severely limited matching range and covered only 80, 40, 20, 15 and 10 Meters. MFJ-974HB *is its successor*. It meets today's needs and even surpasses the Johnson Matchbox' outstanding matching performance.

MFJ-974HB gives excellent current balance, very wide matching range (12-2000 Ohms) and covers 1.8-54 MHz *continuously* including WARC bands, 160 Meters, 6 and new 60-Meters. 300 Watts SSB PEP and 150 Watts CW.

Tuning is fast and easy - - just 3 controls. Adjust for highly efficient broadband low-Q operation or use higher Q when you see extreme loads.

A large 3-inch lighted Cross-Needle SWR/Wattmeter lets you read SWR, peak or average forward and reflected power *all at once* on 300/30W ranges.

A ground post is provided to ground one output terminal so you can also tune random wires and coax fed antennas. 7½Wx6Hx8D" fits anywhere.

The MFJ-974HB tunes any balanced lines including 600 Ohm open wire line, 450/300 Ohm ladder lines, 300/72 Ohm twin lead - - shielded or unshielded.

Superb current balance minimizes feedline radiation that can cause troublesome TVI and RFI, painful RF bites, mysterious RF feedback problems and radiation pattern distortion.

MFJ-974HB is a *fully balanced* wide range T-Network using four gear driven 1000-Volt air variable capacitors and high-Q air wound tapped inductor for 80-10M and separate inductors for 6/160 Meters. The tuning components are mounted symmetrically to insure electrical balance.

1:1 current balun is placed on the low impedance 50 input side to convert the balanced T-Network to unbalanced operation. Made of 50 ferrite beads on RG-303 Teflon™ coax to give exceptional and efficient isolation. It stays cool even at maximum power.

Balanced lines give extremely low loss. Doublet, horizontal loop, vertical loop, quad, double extended Zepp, Lazy H, W8JK antennas all give efficient operation when fed with balanced lines.

6-80 Meter Balanced Line Tuner
MFJ-974B. Similar to MFJ-974HB but for 6-80 Meters only.

1.5 kW Fully Balanced Antenna Tuner
MFJ-976. Handles 1500 Watts, extra-wide 12-2000 Ohms matching range, continuous 1.8-30 MHz coverage.

MFJ Small, high efficiency *Loop Tuners*™

Turns any coax or wire loop into a small, high efficiency multi-band transmitting loop antenna

C

B

A

Drape a wire around a bookcase or window and attach both ends to this new *MFJ Small Loop Tuner*™. Or use a length of coax for an even faster loop!

Operate 5.3 to 30 MHz with a full 150 Watts. No ground, radials or counterpoises needed.

New beefier tuning capacitor of 313 pF, low loss butterfly loop tuning capacitor -- no rotating contacts.

It's a very quiet receiving antenna -- you'll hardly notice static crashes. Its high-Q reduces QRM, overloading, harmonics. It's perfect for apartments, antenna restricted areas and portable operation.

A 13' wire formed into a loop operates 30-20 Meters (4' for 17-10M; 7' for 20-15M; 28' for 60-40M). Tune *any* shape loop -- circle, square, rectangle, *etc.* A 1/4 wavelength wire shaped as a *circle* is most efficient.

A given wire length covers about 1.5 to 1 frequency range (i.e. 7-10/18-28 MHz, etc.). Exact frequency coverage depends on wire length, loop shape, surroundings and height above ground.

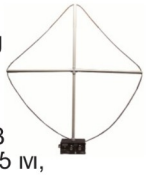
Easy-Carry handle, mount for PVC cross, tripod mount adapter.

A. MFJ-936C. Relative RF antenna current meter with sensitivity, 30/300W range, Wattmeter. 9¼Wx5½Hx9½D".

B. MFJ-935C. Like MFJ-936C, less SWR/Wattmeter. 6¼Wx5½Hx9½D".

C. MFJ-933C. Like MFJ-935C less meters. 6¼Wx5½Hx9½D".

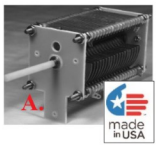
MFJ-57B, $39.95
PVC Cross for mounting loop on cover, 20-15M insulated 10-gauge flexible loop, resistance lugs.



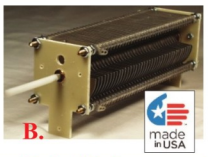
MFJ-58B. Has MFJ-57B above, plus 60-40 M, 20-15 M, 17-10 M loops; wire clips.

Butterfly Tuning Capacitors

The heart of *MFJ Loop Tuners* is extremely *low loss butterfly tuning capacitors* with no rotating contacts. Each handles 1500 Volts RMS and has a ¼"dia. by 2½" shaft.


A.

A. MFJ-19.
12 to 67 pF.
6Dx3Wx3½H inches.


B.

B. MFJ-23.
18 to 136 pF.
10Dx3Wx3½H".

MFJ 2500 Watts *ContinuousCarrier*™ Tuner

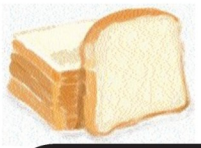
MFJ-9982

Get 2500 Watts *continuous carrier output* on *all* modes and *all* HF bands into most unbalanced antennas -- even on 160 Meters where even the best antenna tuners fail!

MFJ-9982 gives you every feature you'll ever want in a high power tuner -- wide matching range, 1.8 to 30 MHz coverage, 6-position antenna switch, 4-core balun, dummy load, *true* peak/average lighted SWR/Wattmeter, 6:1 reduction drive, 3-digit turns counter, extra large knobs and more! The *Heart and Soul* of the MFJ-9982 is its roller inductor and variable capacitors. MFJ's high power, high-Q *continuous current AirCore* ™ roller inductor is not ordinary! It's edge wound from thick .06" *silver-plated* solid copper strap. It can carry huge circulating RF currents and withstand extreme heat that'll burn up ordinary roller inductors. *Self-insulating* construction reduces stray capacitance -- keeps self-resonant frequencies high and out-of-the-way. Dual, *silver-plated* compression wheels give ultra low-resistance contacts. Roomy cabinet maintains high Q. Vent holes. Heavy gauge, .08 inch aluminum braced chassis. Measures and weighs a robust 13¾Wx7Dx16¼D inches, 15 pounds.

QRPocket ™ Loop Antenna
MFJ-9232. *QRPocket*™ Loop Antenna makes portable operation *truly* portable and fun! *No ground needed! High-efficiency* loop covers 40-10M with included flexible wire loop. 25 Watts. BNC Connector for transmitter, wing nut posts for loop wires. Durable, plastic cabinet, 2¼Wx4Hx2¼D inches.

MFJ-9234. Right. Like MFJ-9232 but connects directly to your favorite QRP rig with built-in PL-PL-259 connector.



"Best thing since sliced bread!"

More hams use MFJ analyzers than all others in the world!

MFJ-259D . . . World's Most Popular Antenna Analyzer!

MFJ-259D

New and improved, now covers 280 KHz-230 MHz!

***World** famous* **MFJ-259D** gives you a complete picture of your antenna's SWR and Complex Impedance.

MFJ-259D is a complete ham radio test station including frequency counter, RF signal generator, *SWR Analyzer*™, RF Resistance/Reactance Analyzer, Coax Analyzer, Capacitance/Inductance Meter and more!

Read Complex Impedance as series resistance and reactance (R+jX) or as magnitude (Z) and phase (degrees).

Determine velocity factor, coax cable loss in dB, length of coax and distance to short/open.

Read SWR, return loss and reflection coefficient at any frequency simultaneously.

Read inductance (uH) and capacitance (pF) at RF frequencies.

Large easy-to-read two line LCD screen and side-by-side meters clearly display your information.

Built-in frequency counter, Ni-MH/Ni-CD charger circuit, battery saver, low battery warning, smooth reduction drive tuning.

Super easy-to-use! Just set the bandswitch and tune the dial -- just like your transceiver. SWR, Complex impedance displayed instantly!

Fully portable, take it anywhere -- remote sites, up towers, on DX-peditions. Use 10 AA or Ni-Cad or Ni-MH batteries (not included) or 110 VAC with MFJ-1312D. Rugged metal cabinet 4x2x6¾".

MFJ-249D.

MFJ-249D does everything MFJ-259D does with digital display only.

MFJ-269D . . . 280 KHz - 230 MHz plus 415-470 MHz, 12-bit A/D

New and improved. Now covers 280 KHz to 230 MHz and 415 to 470 MHz and 2200 Meter band!

Instantly gives you a complete picture of your antenna.

Read SWR, return loss, reflect-ion coefficient, match efficiency at any frequency simultaneously.

Read Complex Impedance (100 KHz to 230 MHz) as series equivalent resistance and reactance (Rs+jXs) or as magnitude (Z) and phase (degrees). Also reads parallel equivalent resistance and reactance (Rp+jXp).

Determine velocity factor, coax loss in dB, length of coax and *distance to short or open in feet (it's like a built-in TDR).*

Coax Calculator™ calculates coax line length in feet given degrees and vice versa for any frequency, velocity factor.

Measure SWR and loss of coax with *any* characteristic impedance (280 KHz to 230 MHz) from 10 to over 600 Ohms.

Measures inductance in uH and capacitance in pF at RF frequencies, 100 KHz to 230 MHz.

High contrast LCD gives precision readings and two side-by-side analog meters make antenna adjustments smooth and easy.

12-bit A/D converter gives much better accuracy and resolution than common 8-bits -- *MFJ-269D exclusive!*

Built-in frequency counter, battery saver, low battery warning, Ni-Mh/NiCd charge circuit. 4Wx2Dx6¾", 2 lbs. Use ten aA batteries or 110 VAC with MFJ-1312D,.

MFJ-269D

MFJ-269D PRO™ SWR Analyzer

MFJ-269DPro. Like MFJ- 269D, but UHF range covers ***430 to 520 MHz***. For commercial work.

MFJ-223 1-60 MHz Color Graphic VNA Analyzer

This *pocket-sized wonder* breaks the mold for analyzer design with user-friendly convenience, top notch accuracy, and a vivid TFT multi-color display. Don't let the size fool you, it's packed with VNA features and performance you need!

MFJ-223

- **Single-frequency** and *swept-frequency* operation
- **Truly accurate** SWR, R, X, and Z measurements
- **Seamless DDS** coverage, 100-Hz resolution from 1-60 MHz
- **Smooth "skip-free"** encoder tunes fast or slow without missing a step
- **Powerful +5-dBm** stimulus generator
- **Field-strength meter**
- **DDS generator** precision signal source
- **Vivid 1600-pixel/inch** color graphics on a 2x2 inch non-glare TFT screen

MFJ-225 1.5-180MHz *continuous* Two-Port Graphic Analyzer

Out in the field, the MFJ-225 is a compact completely *self-contained handheld graphing analyzer*. On the bench it becomes a full-fledged two-port (S21) desktop machine when teamed up with your PC. Using powerful IG-miniVNA freeware, you'll run de-tailed data analysis and print out stunning color-graphic plots to document your work! Built-in back-lighted *3-inch LCD graphic* display. Make fine adjustments using full-screen easy-to-view SWR bar-graph, capture vivid swept displays for SWR, impedance, re-turn loss, phase angle, more. DDS generator.

MFJ-225

SWR Analyzer Accessories

A. MFJ-29D/MFJ-39D. Carrying Pouch for MFJ-259D/269D.

B. MFJ-92AA10. 10-Pk 2500 mAh Ni-MH Supercells.

C. MFJ-66C. Dip coils, set of two covers 1.8-230 MHz.

D. MFJ-731. Tunable Analyzer Filter, 1.8-30 MHz, for strong RF fields.

E. MFJ-917. 1:1 Current balun for SWR Analyzers to test balanced line antennas, other loads.

F. MFJ-7737. PL-259 to BNC Female.

G. MFJ-7727. PL-259 to SMA Female.

H. MFJ-5510C.12VDC cigarette lighter adapter.

MFJ Dry "Handy" Loads . . . 3 GHz or 500 MHz

3 GHz, 200W Dry Load

The heart of Ohm dry dumr loads are the resistor inside.

Made with copper flanges and Be ceramic for an incredibly low thermal resistance and capacitance.

DC to 3 GHz on MFJ-262BN with an SWR of less than 1.2:1. DC to 1 GHz with SO-239.

Handles up to 200 Watts for 5 seconds and 35 Watts continuously. Black finned aluminum construction. 1¾Wx4¾Hx1½D inches.

With N male
DC to 3 GHz

MFJ-262B
With PL-259
DC to 1 GHz

500 MHz, 100W Dry Load

Connects directly to your rig or test equipment with a PL-259. Use with MFJ-259B *SWR Analyzer*™ or MFJ-261N for MFJ-269.

No patch cable used, reduces SWR. Finned aluminum, air-cooled heatsink. Handles 100 Watts peak, 15 Watts average. 50 Ohms. DC to 500 MHz with less than 1.15:1 SWR. 1⅝ round by 3" long.

MFJ-261N. Like MFJ-261, but has N-male connector.

MFJ-261
With PL-259
DC to 500 MHz

1-50 MHz Phase Meter

MFJ-222

Uses low power, high-speed dual comparator circuit to allow *precision* phase measurements 1-50 MHz.

Indicates if unknown phase lags or leads reference signal.

Built-in 50-Ohm load. Bright 2-line LCD allows precision readout of phase -180 to +180 degrees.

Use 9V battery or 12VDC, 110 VAC with optional MFJ-1312D power cube.

MFJ Analyzer Precision Calibration Load set

MFJ-252B/N/U

Calibrate your analyzer with these MFJ Precision Calibration loads. MFJ-252s are non-inductive.

Useable up to 1 GHz. Each set includes a 50 Ohm, .1W (+/- 1%), open and short loads.

Available with N, UHF or BNC connectors.

Select MFJ-252B for BNC connectors, MFJ-252N for type N-type connectors, or MFJ-252U for SO-239 (UHF) connectors. Set of three loads each.

Pocket-size Frequency Counter

300 Hz - 2.8 GHz

MFJ-886C

MFJ-886C covers 300 Hz to 2.8 GHZ with 1 Hz resolution and four *selectable* gate speeds. Super handheld unit is a tiny 2⅜Wx3¼Hx1⅛D".

Truly *pocket-sized* MFJ-886C has a large *easy-to-read* 2Wx¾H 10-digit backlit LCD and 11-segment RF Signal Strength Bargraph.

Low power consumption. Internal lithium battery (800 mAh).

Has low battery indicator. Run for about 12 hours on a single charge! Auto-sleep mode.

Includes built-in lithium battery, 12 VDC, 1A power adaptor/charger for 110 VAC and telescoping BNC antenna.

MFJ-886C has a 50-Ohm amplifier for 1 MHz to 3 GHz operation and a 1M Ohm amplifier for 10 Hz to 50 MHz. 45 degree flip stand is for easier viewing.

Has highly sensitive input with a time base at < 10 PPM.

Hold button locks the MFJ-886B display and will continually display the last frequency received. There is also an automatic hold mode for locking in on special frequencies.

HF Analyzer ™

MFJ-207.
This HF SWR Analyzer helps you build the antennas you need for quality DX work. Plug in your coax to measure the SWR of any HF antenna from 160 through 10 Meters. Has jack for external frequency counter. Use with 9VDC battery or 110VAC with **MFJ-1312D**. Hand-held size 7½Hx2½Wx2¼D".

VHF Analyzer ™

MFJ-208.
This VHF *SWR Analyzer*™ finds your SWR on a calibrated dial from 138-156 MHz -- a must-have for VHF antenna builders! Has jack for external frequency counter -- helps in testing VHF rigs. Compact 7½Hx2½Wx 2¼D". Use 9 Volt battery or 110 VAC with optional MFJ-1312D.

MFJ Antenna Bridge

MfJ-204B. Test if your antenna is too long or short, check resonant frequency and resistance to 500 Ohms. Easiest, most convenient way to check antenna parameters. Resistance bridge, null meter, tunable oscillator-driver 1.8-30MHz. 9 VDC /110 VAC. MFJ-1312D. 7½Hx2½Wx2¼D".

MFJ RX Noise Bridge

MFJ-202B.
Adjust any antenna for max performance, 1-100 MHz. Lengthen/shorten antenna for minimum SWR. Measure resonant frequency, feedpoint resistance, reactance. Resistance scale, expanded capacitance range, built-in range extender. 4¼Wx2Hx4D". Use 9V battery.

High and Low Variable RF Transformer

MFJ-2925.

High and Low Impedance Variable Transformer has a bypass/high/low three way switch. Put this in line with your antenna and radio to transform to an acceptable impedance range. Antenna and transceiver connections are SO-239 connectors and MFJ-2925 has a variable impedance adjustment. Compact 4.75Wx2.25Hx1D inches.

MFJ *White Noise* Generator

MFJ-5014. Check IF/HF sensitivity, tune/ adjust filters/networks and more. Combine with directional coupler to measure return loss. Requires 9V battery. BNC/SO239s.

MFJ HF SWR Analyzer 1-60 MHz

MFJ-213

Covers 1-60 MHz with digital precision, see it bright and clear on the nice, green backlit LCD.

Displays SWR, complex impedance, and impedance magnitude simultaneously -- *all on easy-to-read LCD*. Check capacitance, inductance, field strength, frequency, generate test signals.

Fine tune stubs, analyze coax, test baluns and RF transformers, and perform many other important RF-related tasks around the shack or on the road!

MFJ-213 has all of the features of the popular MFJ-266C but is for HF use only, covers 1-60 MHz.

MFJ-868B *World's largest SWR/Wattmeter* has giant 6½" meter

World's *largest HF+6M SWR/Wattmeter measures a giant 6½ inches diagonally across meter scale!* Covers 1.8-54 MHz.

This one you can See! Its huge scale gives you ultra-fine resolution and its big high-contrast numbers makes reading a breeze -- even across your shack.

Meter needle position and motion gives you an accurate indication for what's going on *quickly* without actually reading the scale -- like a watch.

True Peak Reading Circuit

MFJ's exclusive *TrueActive*™ peak reading circuit captures *true* peak or average forward and reflected power readings. Has 20/200/ 2000 Watt ranges makes it valuable for QRP or QRO operation.

Full SWR Scale

The full SWR scale makes reading SWR more accurate and easier to read.

MFJ-868B

Power Saver*™ *Circuit

Exclusive MFJ Wattmeter *Power Saver*™ circuit turns on meter only when RF power is being measured.

Covers 1.8-54 MHz. Use 9V battery or 12 VDC or 110 VAC with MFJ-1312D. Cabinet measures 7Wx5½Hx5D inches.

Largest VHF/UHF SWR/Wattmeter!

MFJ-867. Like MFJ-868B but covers 144/220/440 MHz frequencies. Handles 400W, 400/200/20 Watt ranges.

Giant Automatic SWR/Wattmeter

MFJ-869 has a giant 6½ inch meter, 20/200/2000 Watt scales, *TruePeak*™ active circuit and average forward and reflected power modes and fully-automatic SWR readings. *Amplifier Bypass Control*™ and *Control Relay* for high SWR. Covers 1.8-60 MHz.

MFJ Giant Cross-Needle Peak-Reading SWR/Wattmeters

MFJ *Giant* SWR/Wattmeter series have large 3⅝ inch Cross-Needle SWR/Wattmeters that have a three-color scale for improved readability.

Simultaneously display forward, reflected power and SWR all *at a glance!* Individual meter scales for each range increases reading accuracy.

True*™*Active *peak-reading circuit* is included for SSB operation (MFJ-891 only). LED backlighting gives smooth, even illumination for night viewing.

Low bias Schottky diode detectors increase linearity from low power to high power readings.

SWR less than 1.2:1. Meter accuracy is +/- 10% of full scale or better. Has lighted meter on/off switch.

Extra sturdy with large rubber feet, rugged metal and *designer-styled* plastic injection molded panel. Handsome black and gray. Super quality input/output SO-239s. 7¼Wx4½Hx4½D inches.

Select from the following models:

MFJ-891. HF 1.6 to 60 MHz. 2 kW in 3 power ranges: 20/200/2000W. *True Active*™ PEP Circuit for SSB operation.

MFJ-892. HF/VHF 1.6 to 200 MHz. 200 Watts, 3 power ranges: 2/20/200W.

MFJ-893. VHF/UHF 125-525 MHz. 200 Watts in 3 ranges: 2/20/200W.

MFJ-894. HF/VHF/UHF 1.6-60 and 125-525 MHz. 200 Watts in three ranges: 2/20/200 Watts.

MFJ GrandMaster ™ SWR/Wattmeter Series

Grand Master™ SWR/Power Meters are the *Cadillacs of ham radio!* If you will not settle for less than the best accuracy and precision then these are for you.

Large 3¼x1¼" precision lighted meterread SWR, forward or reflected power. This series features an SWR scale that extends the full meter. 3:1 SWR is centered at mid-scale to give precision, wide-range measurements.

Each is in an all metal cabinet with rubber feet, black. 7½Wx3⅛Hx4¼D".

MFJ-870. HF, 1.6 to 60 MHz. 30, 300, 3000 Watt power ranges.

MFJ-872. HF/VHF, 1.8 to 200 MHz. 5, 20, 200W power ranges.

MFJ-873. VHF/UHF, 125-525 MHz. 5, 20, 200W power ranges.

MFJ-874. HF/VHF/UHF, 1.8-525 MHz. 5, 20, 200W ranges.

MFJ HF QRP Wattmeter and SWR Bridge

MFJ-813

Read forward and reflected power from 0-5 Watts on a calibrated meter scale. Plus read SWR and relative power at any power level from 100 mW to 50 Watts. Bruene-style bridge circuit detects both RF current and RF voltage to ensure uniform accuracy across a wide range of load impedances, operating frequencies, and power levels. It's a great tool for working on your QRP radios, running on-air QRP signal trials, or setting up antennas out in the field. Covers 1.8 to 50 MHz. SO-239s. Rugged black aluminum, 4½Wx2¼Hx3D inches.

VHF SWR Wattmeter plus Field Strength

MFJ-812B

MFJ-812B is the world's most popular -- and most affordable -- VHF SWR/Wattmeter. Has a built-in field strength meter. Covers 2 Meters and 220 MHz. Reads forward and reflected power in two ranges -- 30 or 300 Watts.

Reads SWR from 114 MHz through 220 MHz. Also reads relative field strength from 1 to 220 MHz. Has binding post for field strength antenna. Black. 4½Wx2¼Hx3D inches.

Econo HF SWR/Wattmeter

MFJ-816

This HF SWR/Wattmeter lets you read forward and reflected power on two scales -- 30 and 300 Watts -- and SWR from 1.8 to 30 MHz. Check it all in a single glance!

Toroid current pickup gives uniform sensitivity. Easy push-button operation.

Sturdy all-black aluminum cabinet. SO-239 connectors. 2-color meter scale. Compact 4½Wx2¼Hx3D inches -- makes it ideal for portable use, camping, backpacking.

MFJ Compact HF, VHF, UHF SWR/Wattmeters

MFJ-860

MFJ-862

MFJ-864

This MFJ Cross-Needle SWR/wattmeter covers HF thru VHF -- 1.8-60 MHz, 144 MHz, and 440 MHz bands!

MFJ-864. *Cross-Needle* Meter reads forward and reflected power and SWR *simultaneously* and features separate HF and VHF/UHF directional couplers, each with its own SO-239 connectors.

This lets you connect your HF and VHF/ UHF (1.8-60, 144, and 440 MHz bands) transceivers at the same time. You can then monitor SWR and power of either transceiver at the flick of a switch. Others have a single set of connectors -- you have to plug and unplug to use separate HF or VHF rigs.

Power ranges: 30/300 watts forward and 6/60 watts reflected. Power range for each band is individually calibrated. Schottky diodes used for best accuracy.

Single knob operation is easy to use and lighted meter is easy reading. Use 12 VDC or 110 VAC with MFJ-1312D.

All black aluminum cabinet. You won't find a tougher, longer lasting finish anywhere. **MFJ-864** measures a compact 7¼Wx2½Hx2¼D inches.

MFJ-862. Like MFJ-864 but for 144/220/440 MHz. 30/300 Watts forward, 6/60W reflected. 5¾x2½x2¼".

MFJ-860. Like MFJ-864 but for 1.8-60 MHz. Select 30/300 Watts forward, 6/60W reflected. Tiny 4½x2¼x3 inches.

Compact Cross-Needle SWR/Wattmeters

MFJ-822, 1.8-200 MHz

MFJ-842, 140-525 MHz

Compact HF/VHF and VHF/UHF SWR/Wattmeters have a HUGE 3" Cross-needle meter. Read forward/reflected power and SWR simultaneously. Perfect for mobile or portable operation. Two selectable power ranges, built-in meter light (+12 VDC). SO-239 connectors. 3¼Wx3¼Hx3¼D".

MFJ VHF/UHF SWR Mobile Power Meter

Covers 144 and 440 MHz. Insertion loss is 0.3 dB or lower with 50 Ohm impedance. SO-239s. Compact 3¾W x3Hx1¼D". Handles 200 Watts and measures SWR and Power in 3 ranges: 15/60/200W. White, orange, and black meter face makes for easy reading. Die-cast metal, quality connector.

1.8-60 MHz SWR/Wattmeter *with TrueActive™ Peak Reading circuit*

MFJ-815D 1.8-60 MHz

MFJ-817C 144/220/440 MHz

MFJ-815D and **MFJ-817C** read *true-peak* or average power on a large illuminated 3-inch Cross-Needle Meter.

TrueActive™ peak reading circuit gives an incredibly accurate SSB/CW readings over wide frequency range.

Cross-Needle Meter reads SWR and *true peak* average, forward and reflected power *simultaneously -- a single glance*! Mechanical adjustment for accurately zeroing the meter.

Select range, meter on/off and peak for SSB or average for CW. SO-239s.

MFJ-815D has 3000 and 300 Watts forward and 600/60 Watts reflected power ranges. **MFJ-817C** has 2 power ranges: 300/30 and 60/6W. Read SWR from 1:1 to 8:1. Use 12 VDC or 110 VAC with MFJ-1312D.

Measures 6Wx3½Hx4½D inches.

MFJ Digital SWR/Wattmeters

MFJ-845
1.6-60 MHz, 0-200W

MFJ-847
125-525 MHz, 0-120W

MFJ Digital SWR/Wattmeters display Forward, Refelected Power, SWR and Battery life *all in a single glance!*

Large 1/2" forward power digits and 5/8" Reflected and SWR digits! LCD screen is 2.25 inches diagonally. Power on/off, backlight on/off switches.

Power with triple AAA battery or micro USB port. SO-239 Connectors.

Super compact 4Wx3Hx1D inches.

Base Station Digital SWR/Wattmeter

MFJ-849

MFJ-849 is like MFJ-884 (below left), but it has a super large 3.5" bright orange LCD display that reads SWR, forward and reflected power *digitally* in a single glance. It can be seen from across the room. Covers 1.5-525 MHz, has HF/VHF switch, handles 200 Watts. Compact 5½Wx3⅛Hx5D inches. This looks great in the shack or as part of your Go-kit!!!

Ruggedized flat Mobile/portable MFJ SWR/Wattmeters

MFJ-818

MFJ's flat, compact SWR/Wattmeter is *plenty rugged* to take the abuse of *brutal* mobile or portable operation. Easily mounts on dash for easy viewing. Flat mount on wall/shelf in shack for best view angle. Meter is fully enclosed in a strong aluminum case with just the scales exposed. Two small switches slightly protrude so there's little to break.

Simultaneously read SWR/forward/reflected power on this full size 3-inch lighted *Cross-Needle* Meter. 0/300 Watt ranges, 1.8-30 MHz, SO-239. Use 12 VDC for meter lamp or plug into cigarette lighter. **MFJ-5510C**,. Tiny all-metal cabinet, 5Wx3Hx2D inches.

MFJ-819,. Flat mount 1.8-60 MHz Mobile SWR/Wattmeter with remote sensor and 25 feet flexible cable. Handles 1500 Watts. Use 9V battery or 12 VDC. 5Wx3¼Hx1⅝D".

MFJ 3-inch Cross-Needle SWR/Wattmeters

MFJ-883

Read SWR, forward power and reflected power simultaneously in a single glance!

Three-color scale gives improved readability. LED backlight gives excellent night vision. Requires 13.8 VDC or 110/VAC operation. Air-Di-electric SO-239s are gold plated center pins for performance beyond 525 MHz.

All-metal cabinet with rubber feet and protected by a durable speckled black paint. Super compact 5½Wx3⅛Hx5D inches.

Four models to choose from . . .

MFJ-880, $129.95. HF, 1.6-60 MHz, Power: 0-2000W. Range: 20/200/2000.

MFJ-882. HF/VHF. 1.8-200 MHz. Power:0-200W. Range: 2/20/200.

MFJ-883. VHF/UHF,125-525 MHz. Power: 200W in 2/20/200.

MFJ-884. HF/VHF/UHF, 1.8-525 MHz, Power: 0-200 Watts. Range: 2/20/200 Watts. Separate HF and VHF/UHF power sensors with SO-239 connectors.

High-accuracy MFJ Digital SWR/Wattmeter, 1.8-54 MHz, 1500 Watts

MFJ's *high-accuracy* digital SWR/Wattmeter/Frequency Counter measures up to 1500 Watts. Get three high-resolution ranges with accuracy in each range, 1.8 to 54 MHz! True peak or average forward/reflected Watts, SWR, frequency can be displayed.

Select auto-ranging *bargraph modes:* Display forward or reflected power, SWR *twin* graphs or SWR only graph. Frequency, SWR and power are also displayed numerically. Digital-analog displays make it easy to tune tuners, amplifiers and rigs.

Has 3 high-resolution forward/reflected power ranges that are automatically selected: a *true QRP* range (25 Watt full scale), a mid-range (250W full scale) and a high-range (1500W full scale). Each has excellent resolution.

TrueActive™ peak reading circuit gives *true* peak or average power on all modes. *PeakHold*™ feature freezes the highest forward power displayed bar segment for one second.

Built-in frequency counter gives any transmitter digital frequency readout in continuous carrier mode. Perfect for QRP rigs. All information is displayed on

MFJ-826B

a big 2-line, 16- character, high-contrast *backlit* LCD display.

Use 12 VDC or 110 VAC with MFJ-1312D. Black metal cabinet, 6½Wx2⅝Hx6D inches.

made in USA

Digital Cross-Needle SWR/Wattmeter

MFJ-828

MFJ-828 has ***ALL*** of the features of the MFJ-826B 1.8-60 MHz, 1500 Watts *high-accuracy* digital SWR/Wattmeter/Frequency Counter . . . ***PLUS . . .*** it has a large, three inch lighted *Cross-Needle SWR/Wattmeter* and *Amplifier Bypass Control*™ (protects amplifier during high SWR events), and a *Control Relay* with normally open and closed connections that toggles when SWR is above a pre-set limit. Field-upgradeable firmware on MFJ website.

MFJ in-line or Clamp-On Calibrated RF Ammeters

MFJ-834

Coax *In-Line* RF Ammeter connects between antenna and tuner/transmitter/ amplifier and measures feedline current in 3 calibrated ranges. Use it . . . for *tuning* your antenna tuner, transmitter, or amplifier for maximum radiated power… for *determining* antenna feedpoint impedance… for *comparing* antennas and tuners… for *trouble shooting*. . . and *checking* for changes.

Antennas change when you apply power. Insulators break down, traps heat up, capacitors leak, and feedpoint impedance may be drastically different from SWR Analyzer measurements.

MFJ RF ammeters read accurately 1-30 MHz in 3 *linear* ranges: .3, 1, 3 A.

Large 3-inch lighted meter. Use 12 VDC or 110 VAC with MFJ-1312D. SO-239s. 6Wx3½Hx4½D".

MFJ-834H. Like MFJ-834, but 3, 10, 30 Amps *high current* ranges.

MFJ-836

An *all-in-one* RF Ammeter/SWR/ Wattmeter!

Your Ammeter lets you quickly determine feedpoint impedance, monitor antenna for changes under direct power such as traps heating up, capacitors leaking, insulators breaking down. Read RF current at a glance!

Your SWR/Wattmeter lets you read SWR, forward and reflected power on a large 3-inch lighted easy-to-read *Cross-Needle* meter. Reads SWR, forward (300/3000W) and reflected power (60/600W) *simultaneously*.

Exclusive *TrueActive*™ circuit gives you *true* peak/average power readings. SO-239 connectors. Use 9 Volt battery and/or 12 VDC or 110 VAC with MFJ-1312D. 6Wx3½Hx4½D inches.

MFJ-836H. Like MFJ-836 but 3, 10, 30 Amps *high current* ranges.

MFJ-835

BalancedLine *RF Ammeter*™ is *two* identical calibrated RF ammeters using an MFJ *Cross-Needle* meter.

Feedline currents are *simultaneously* displayed on separate calibrated scales in three ranges (.3, 1, 3 Amperes). Balance*Bar*™ shows when balanced, needles *cross in center* -- no matter actual current.

If the needles cross within the vertical *BalancedBar*™ the balance is within 10%. If not, you know which line is unbalanced and by how much.

Equal currents in feeder wires minimize feedline radiation, reduces pattern distortion, RFI, TVI and wasted power. Imbalance is due to feedline not being perpendicular to antenna, runs close to metal or is closer to ground. Heavy-duty 5-way binding posts for balanced feedlines. Use 12 VDC or 110 VAC with MFJ-1312D. 6Wx3½Hx4½D".

Calibrated *Clamp-On* RF Ammeter

MFJ-854

Clamp-On RF Ammeter quickly snaps over wires and cables to measure RF currents flowing in antenna elements, radials, ground wires and outside of coax.

Tune counterpoises, radials and ground systems. Study/optimize your antennas for peak performance. Find current peaks/nulls on antennas/feedlines. Determine antenna feedpoint impedance, radiated power, losses and efficiency. Five *calibrated* ranges to 3 Amperes, sensitive 30 mA range with linearity compensation. Less than 1 mA on super-sensitive *Variable Range* yields usable meter deflection for tracking RFI on household wiring.

1-30 MHz. ½ inch diameter cables. 2½ Wx5½Hx1½D in.

MFJ Super-Sensitive *RFI Sniffer*

MFJ-805

made in USA

Works with mobile installations for ferreting out alternator hash, ignition pulses and microprocessor noise on feedlines and power leads.

Isolate cables *picking up* RFI and know when you've suppressed the problem when there is no more RFI to be read. Super Easy-to-use.

Clamp current transformer over suspected cable or wire (up to ¼ in. dia.) to detect RFI causing common-mode currents. 2¼Wx4¾Hx1D inches fits in your shirt pocket.

Use 9 Volt battery. Usable from VLF to VHF. Gain is adjustable over 50 dB range.

Calibrated *mini Clamp-On* RF Ammeter

MFJ-853

made in USA

Calibrated *mini Clamp-On* RF ammeter accurately measures RF current in antenna elements, radials, ground wires, coax shield.

Non-metallic lightweight case minimizes electric field disturbances for accurate readings -- just clamp on mobile whip/ or vertical antenna.

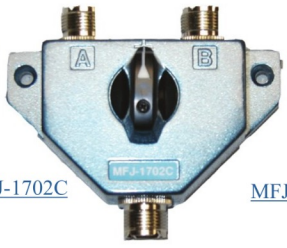
Adjust for maximum radiated current. Determine radiated power and losses. Profile its current distribution -- it's maximum at base and tapers to zero at end.

Measures in 0.3, 1, 3 Ampere ranges. Small 2¼Wx3¾Hx1D inches.

MFJ-853H. Like MFJ-853, but has 3, 10, 30 Ampere high-current ranges.

MFJ Manual Heavy Duty Coax Switches

MFJ-1704



MFJ-1702C

MFJ-1702

MFJ-2702

MFJ-2703

Mount this 4-position SO-239 switch on your operating desk and you'll have more than the convenience of being able to instantly select any of four antennas or the center ground position -- you'll also get the replaceable lightning surge protection device that helps protect against distant lightning induced surges and static. Handles a full 2.5 kW PEP. Extremely low SWR. Isolation is rated from better than 60 dB at 30 MHz to better than 50 dB isolation at 500 MHz, negligible insertion loss, 50 Ohms. **MFJ-1704N.** 4 pos. "N" connectors.

MFJ-1702C 2-position Coax Switch has a new lightning surge protection device that helps protect against distant lightning induced surges and static. MFJ-1704 and MFJ-1702C have a (sets antenna to ground) center ground position and handles 2.5 kW PEP, 1 kW CW. It has better than 60 dB isolation at 300 MHz and better than 40 dB at 450 MHz. 50 Ohms. Unused terminals are automatically grounded for static and RF protection. It has less than 0.2 dB insertion loss and SWR below 1.2:1. MFJ-1702C has a heavy cavity type construction and uses SO-239 connectors. Mounting holes. 3Wx2Hx2D".

MFJ-1702CN. 2P, N. DC-1.1 GHz.

MFJ-1702. Like MFJ-1702C, less surge protection, center ground.

MFJ 2/3/4 Position Rhino Antenna Switches

MFJ-2704

Six Rhinos to choose from . . .

MFJ-2702. 1 GHz, 2P, SO-239. 2 kW DC-30 MHz, 1 kW 30-200 MHz, 500W 200-500 MHz, 250W 500-900 MHz. 0.5 dB insertion loss DC-500 MHz.
MFJ-2702N. 3 GHz. N connector.
MFJ-2703. SO-239. Like MFJ-2702, 3P.
MFJ-2703N. 1.5 GHz, 3P, N.
MFJ-2704. 900 MHz, 4P, SO-239.
MFJ-2704N. 1.5 GHz, 4 pos, N-type.

MFJ Six Position Antenna/Transceiver and Antenna Switches

MFJ-1700C

MFJ-1700C adds lightning surge protection and boasts a much better isolation between connectors and wires internally.

High power Antenna and Transceiver Switch lets you select one of 6 antennas and one of 6 different rigs in any combination. You can have dedicated radios/antennas doing select ham activities.

Also plug in an antenna tuner, SWR wattmeter, other electronic equipment. Has quality SO-239 connectors.

Stay connected to antenna/radio selected. 2 kW PEP SSB, 50-75 Ohms.

Unused terminals automatically grounded. SO-239s. 1.8 to 30 MHz. Measures a compact 4 3/4W6 1/2Hx3D".

MFJ-1701

6 Pos. Antenna Switch

Select one of six antennas. Covers 1.8-30 MHz. Unused are automatically grounded. SO-239s. 2 kW PEP, 1 kW CW, 50-75 Ohms. 10Wx3Hx1 1/2D".

Balanced Line Ant. Switches

MFJ-1706

Use 1 of 6 different balanced feedlines 1.8 to 30 MHz. Handy, versatile 5-way binding posts. 1500 Watts PEP SSB. Silk-screened label positions. 9Wx3 1/4Hx6 1/2D inches.

MFJ-1706H is like MFJ-1706 but has high-voltage glazed ceramic feedthru insulators instead of 5-way posts.

MFJ 12-Position Coax Patch Panel

Coax Patch Panel connects devices with virtually no loss, feed-through or cross-talk . . .

Provides 12 *Teflon*(R) SO-239 coax feedthru barrel connectors to patch 12 coax fed devices together with short coax jumpers.

Extremely high performance and versatile *military/professional* patch panel approach has virtually no loss, no feed-thru and no cross-talk -- depends only on the quality of your coax -- and has far better performance than any switching system.

To use, connect your coax fed devices (rigs, antennas, SWR/Wattmeters, tuners, amplifiers, preamps, switches, and other electronic equipment) to coax connectors inside the patch panel.

MFJ-4706

Each device is then available on the front panel and can be connected to any other device using a short coax patch cable. All can be used at the same time.

Cables enter through side or rear on either side. Has wing nut for ground. Side/back mounting tabs let you mount to a wall, under your table, or on ham station desk.

Compact 9Wx5Hx4D inches fits just about anywhere.

MFJ-4704

8-Pos. Coax Patch Panel

MFJ-4704. Similar to MFJ-4706 but for **eight** coax-fed devices.

MFJ 4-Position Remote Antenna Switch

MFJ-4713

This HF 4-Position Remote Antenna Switch lets you switch between four antennas remotely. Covers 1.8 to 30 MHz.

Run one coax from the indoor switch box to your outdoor control box onyour mast or tower or where ever your antennas are located.

Then just hook up a coax patch cable from the indoor switch box to your transceiver. Green LEDs show you which of the four antennas you have selected.

Handy mounting holes are on both units. Quality SO-239 connectors, ground lugs.

The outdoor control box is 5Wx4.25Hx1.75D inches. The metal mounting plate protruding from the cabinet is 2 inches by 2.75 inches.

The indoor switch box is 3.75Wx2.75Hx1.5D inches. It's mounting lip protruding from the cabinet is just .25 inches by 3.75 inches. Off position.

Use 12 VAC with included 407-1072 wall adapter.

HF/VHF/UHF BiasTee

MFJ-4116
1-60 MHz

MFJ-4119N
1-440 MHz

Send up to 1A//50VDC thru coax cable to power electronic equipment. Use with your automatic tuner, remote switch, relay box without running separate cables. Requires one MFJ-4116 on each end of coax to *inject* DC power and to *retrieve* DC power. MFJ-4116, 1-60 MHz. SO-239s.

MFJ-4119N, HF/VHF/UHF. N-type.

DC Power Injectors

Measures a super-compact 2 3/4Wx2 1/2Hx1 1/4D inches.

MFJ-4116P. MFJ-4116 pair.

MFJ-4117. Like MFJ-4116, but has switch to turn remote on/off.

MFJ-4118, $69.95. Like MFJ-4116, but provides both +12VDC and -12VDC. Has three switched position settings: +12VDC, OFF and -12VDC.

MFJ SDR T/R Protection Switches

Turns SDR into a panadapter to see entire bands on frequency/waterfall displays.

MFJ-1708B-SDR

An inexpensive wide-band SDR dongle receiver lets you see entire bands on frequency/waterfall computer displays!

If you want to know where activity is, who's generating splatter, what's in the DX window, how wide your audio is or what frequencies are clear, it's all right there! While receiving on your transceiver, MFJ-1708B-SDR switches the SDR to the antenna showing the entire band. On transmit SDR is switched out and grounded to protect your SDR. PTT and a fail-safe RF sensor switches MFJ-1708B-SDR. HF/VHF/ UHF. Mon-itor multiple bands with multiple SDRs and a multi-coupler.

MFJ-1708B-SDR-S. SMA connector for SDR.

MFJ-1708SDR. Original model for HF/VHF.

New B series improvements . . .

The original MFJ-1708 series used one relay and wires to connect the SO-239s. The *new B-series* uses *four* relays and connectors on a *single* pc board. This gives you > 50 dB isolation at 300 MHz and > 68 dB at 50 MHz. SWR < 1.16:1 at 50 MHz and < 1.75:1 at 450 MHz at the transmit port. Mute output is a selectable short or open to ground. Use "boat anchors" or modern receivers or key a linear amplifier. Receiver input protection prevents overload from nearby high power signals and from receive to transmit. A hybrid splitter on SDR models reduces loading effect and gives > 15 dB isolation between the SDR REC and XCVR ports to reduce interference. The original MFJ-1708 series is still available.

MFJ-1708B

MFJ RF Sense Transmit/Receive Switch

Switches your antenna from receiver to transmitter using a relay. Shorts your receiver to ground during transmit. Use RF sensing with adjustable delay or PTT line. Has selectable open/short mute.

MFJ-1707B

Auto switch XCVR between 2 antennas

Automatically switches separate transmit and receive antennas on transceivers with only one antenna port. *Example:* Efficient 75M dipole for XMIT and low noise MFJ loop for receive -- *no static crashes!*

New! MFJ Dual Antenna Quad Radio Multi-coupler

MFJ-8504NB With BNCs

MFJ-8504NB lets you hook up to four SDR radios, shortwave receivers or transceivers to two receive antennas! AM notch filter prevents noise from strong broadcast stations.

This lets you monitor several signals at once -- an amazing receiving post!

This broadbanded radio multi-coupler has excellent performance from 300 kHz to above 850 MHz, 30dB IP3.

Reverse polarity protection, internal fuse, BNC input/output. Unused ports automatically terminated. Rugged, fully shielded aluminum, 6Wx1 3/4Hx3 3/4D in. Use 9-15 VDC@150 mA nominal or 110 VAC with MFJ-1312D, $17.95.

MFJ-8504NS. Like MFJ-8504NB, but with SMA input/output.

MFJ-8504NB. Like MFJ-8504NB, but without AM notch filter.

MFJ-8504B/S. Like MFJ-8504NS but without AM notch filter. **Inputs** can be split by frequency range using *optional* dual filters. SMA/BNC.

MFJ-8504AN. Add an AM Notch filter to your MFJ-8504.

MFJ-8504LP. Low pass 30 MHz.

MFJ-8504HP1. High pass, 30 MHz.

MFJ-8504HP2. High pass, 1.7 MHz.

MFJ Transceiver/Antenna RF Safety Switch

MFJ-1703B

Keeps your expensive transceivers safe from transmitting into absolutely nothing! No more burning up your radio because you forgot to change your antenna switch! 1.8 to 54 MHz. Your transceiver is always hooked up to one of two antennas! Connect two rigs and two antennas and switch to different combinations. Handles 300 watts PEP SSB, handles 150 watts CW. Handy mounting tabs for wall mounting. All metal construction, switches 50-75 Ohm unbalanced lines.

MFJ 2-Position Remote Antenna Switch

MFJ-4712

2-position *remote* antenna switch uses a *single* coaxial feedline to feed 2 antennas, DC power and control signals -- no power/control cable needed. Perfect for switching from HF to VHF -- no more unplugging coax just to switch frequencies. 1.8 MHz-150 MHz, 1500W, 50-75 Ohms. 4Wx2 5/8Hx1 1/2D" *Outside Box* fully enclosed, weather protected. SO-239s for XCVR, antennas. Stainless 1 1/2" tall bracket with U-bolt fits masts to 1 1/2". O.D. *Inside* remote control is 2 1/4Wx2 1/2Hx1 1/4 inches.

Desktop/Remote 6 & 4 position *Antenna/Transceiver* Switches

MFJ-4716

A simple rotary switch lets you select 1 of 6 antennas. All unused inputs grounded. You can connect a sense line to your radio so when it's off, all inputs are auto-grounded. Ultra-fast gas discharge *lightning surge protector* protects rig and safely shunts static electricity and lightning induced surges to ground. Doesn't protect against direct hit. SO-239s. 1500 Watts/50-75 Ohm load, 1-60 MHz. Useable to 150 MHz. Use CAT 5 cable, (not included) to connect. Use 12 VDC/110 VDC with MFJ-1312D. 8Wx2 3/4Hx4 1/4D".

MFJ-4716RC. RC for MFJ-4716. Tiny 2 3/4Wx3 3/4Hx1D".

MFJ-4714. Like MFJ-4716, but 4 antennas.

MFJ-4714RC. Remote Control for MFJ-4714.

MFJ-4726

Select 2 of 6 antennas and 1 of 6 transceivers in any combination. Plug in antenna tuner, SWR/Watt-meter or other into common ports, so it's always connected to the antenna and radio. Unused inputs are grounded. In OFF position, all inputs are grounded or control is by remote. *Lightning surge protector* protects transceivers and shunts surges to ground. SO-239s. 1500 Watts into 50-75 Ohm load 1-60 MHz. Useable to 150 MHz. Use 12 VDC or 110 VAC w/ MFJ-1312D. Indoors, not weather protected. 8Wx5Hx4 1/4D".

MFJ-4726RC. MFJ-4726 Remote control.

MFJ-4724. Like MFJ-4726, but four rigs/ant.

MFJ-4724. MFJ-4724 Remote Control

MFJ Dummy Loads

World's most popular Dry 300 Watt HF / VHF Dummy Load

Air-cooled, non-inductive resistor in a perforated metal housing; Has SO-239 connector. Full 300W for 30 seconds. Derating curve to 5 minutes. SWR below 1.1:1 to 30 MHz, 1.5:1 30 to 650 MHz. Compact 2 1/4x2 1/4x7 inches. MFJ-260C

MFJ-260CN. With type "N" connector.

Dry 1.5 kW HF/VHF/UHF Dummy Load

Ham radio's most versatile 1.5 kW 50 ohm *dry* dummy load covers DC to 650 MHz. SWR 1.1:1 to 30 MHz, 1.3:1 to 650 MHz. Handles 1500W for ten seconds, 100W for 10 minutes. 3Wx 3Hx9D in. SO-239 connector. MFJ-264

MFJ-264N. With type "N" connector.

Oil-Cooled 1 kW CW, 2 kW SSB 50-Ohm VersaLoad ™

Run 1KW CW or 2 KW PEP for 10 minutes. Run *continuous duty* with 200 Watts CW or 400W PEP. Trans-former oil included. SWR 1.2:1 to 30 MHz. Low SWR to 400 MHz. SO-239 connector. Safety vent with cap, carrying handle. 7 1/2Hx6 5/8D in. MFJ-250

MFJ-250X. DL can with no transformer oil.

500 MHz, 100 Watt Dummy Load

Connects directly with built-in PL-259. Finned aluminum air-cooled heatsink. 15 Watts continuous, 100W peak. SWR < 1.5:1, DC-500 MHz. 1 5/8 inch round by 3 inches long. MFJ-261 *With PL-259* DC to 500 MHz MFJ-261N Type N

MFJ-262B. PL-259. 35 Watts continuous, 200W for 5-seconds. SWR< 1.2;1 DC-1 GHz. **MFJ-262BN.** Type N.

MFJ 2500W fan-cooled Dry Load

MFJ's 2500 Watt *fan cooled* load handles legal limit amps, 2500W average one minute on, ten minutes off, 300W continuous. DC- 6 Meters. SWR <1.25, 30 MHz; <1.4, 30-60 MHz. Detailed power curve. 12 VDC or 110 VAC. 8 1/4Wx4Hx 9 1/2D in. SO-239s. 5 pounds MFJ-265

Switchable RF Dummy Load

Select 16.6, 25, 50, 100, 150 Ohm dummy loads. Test/calibrate your wattmeters SWR accuracy. At 50 Ohms it handles 300 Watts for 30 seconds with SWR < 1.1, 60 MHz. SO-239. 4 1/2Wx2 1/4Hx6 1/2D in. Optional 12 VDC/110 VAC adaptor, MFJ-1312D. MFJ-251

3 GHz, 300 Watts Dry Dummy Load

New high-tech metal film resistor on large heavy-duty air-cooled heatsink. 300 Watts for ten seconds and 125W *continuously.* SWR < 1.1, 1 GHz; <1.2, 1.5 GHz; <1.5, 3 GHz. N-connector. 10 3/4Wx2 1/4Hx5 1/4D inches. MFJ-263

1.5kW Dry DummyLoad/SWR/Wattmeter

Tune up your transceiver, linear amplifier or antenna tuner into a safe 50 Ohm dummy load at *full power.* Then instantly switch to your antenna and monitor SWR, forward and reflected power on lighted cross-needle meter. 300/3000 Watt ranges. DC-60 MHz.Test/tune Xceivers, amps, tuners, baluns, filters, coax, stubs. MFJ-267

MFJ Ultrasonic Receiver with parabolic reflector pinpoints power line noise

HF and VHF operation can be affected by noise, makes it hard to hear weak stations, adds to fatigue. MFJ-5008

Often, noise is coming from power lines. Power companies are very willing to help out with noise issues, but don't have the equipment or trained personnel to properly locate nearby noise sources.

MFJ-5008 aids in finding noise generated by corona discharge and arcing components. An acoustic receiver is tuned to ultrasonic range of 40 KHz -- hear ultrasonic noises and corona discharge.

18-inch diameter plastic dish gives a narrow beamwidth to pinpoint noise sources less than 12" at 50 feet. Handle is mounted close so center of gravity reduces hand fatigue.

Mounted in a sturdy metal support reduces dish bending/ warping. Target holes in dish are aligned with beam to help pinpoint noise. Receive electronics mounted on handle. Use 9-Volt battery (not incl.). 3.5 mm headphone jack. 20 1/2Wx 19 1/2Hx7D". 2.5 lbs. Stereo with 3.5 mm plug, mono with 1/4" adapter. Also listen to nature: bats, birds, and insects!

MFJ AC Line RFI Filter

MFJ-1164B

Filters and reduces AC power line RFI, hash, noise, transients, surges generated by computers, motors, RF transmitters, static/lightning by 30 db and up to 60-80 dB with ground. Fast, *nano-second* overvoltage protection. Provides inductive isolation, capacitive decoupling, RFI rejection, overvoltage protection of common mode, differential signals. Rejects/ shunts undesired signals to ground. Four 3-wire, 15 Amp, 120 VAC outlets spaced for large adapters. 25A/3000W maximum. Fuse, 5 1/2' cord, nut ground. Mount holes. 12Wx3 1/2Hx2D".

Transceiver Surge Protector

MFJ-1163. Protects expensive transceivers and other equipment from damaging surges. Capacitive decoupling, *ultra-fast* 120 VAC /25A/3000W MOVs protect. (4) 3-prong grounded AC outlets.

Ferrite RFI Suppression Chokes

RFI snap-on chokes selected for RFI suppression.

Install on DC power line to keep ignition noise from your mobile rig and amplifier.

Remove RF on cables and wires to your station.

Isolate RFI on feedlines to your station. 2-piece design, snap and lock securely around cable. Install end-to-end along rigid cable or loop multiple turns with smaller soft cable. **Select four sizes:** .25 inch ID to .75 inch ID.

Model#	Model 4-Pks	Hole Size	Cable Use
MFJ-700A	MFJ-700A4	.275" diameter	RG58/59/6U/8X
MFJ-700B	MFJ-700B4	.402" diameter	RG213/6X
MFJ-700C	MFJ-700C4	.528" diameter	RG11/8U
MFJ-700D	MFJ-700D4	.750" diameter	LMR600
MFJ-700P9	Combo Pack of 9	4-A, 2-B, 2-C, 1-D	Multiples

Safeguard expensive gear from static electricity and lightning surges

MFJ Lightning Surge Protectors handle 400 Watts PEP or 1500 Watts PEP

MFJ-270
400Watts

Safe-guard your expensive equipment from static electricity and lightning induced surges on your 50 Ohm coaxial line.

MFJ's *Guardian Angel*™ Lightning Surge Protector has an *Ultra-fast* gas discharge tube that safely shunts up to 5000 amps of peak impulse current harmlessly to an independent ground. SWR < 1.1:1. Less than 0.1 dB loss. Use up to 1000 MHz. MFJ-270 handles 400 W PEP. MFJ-272 handles 1.5 kW PEP. MFJ-270 and MFJ-272 *do not* protect against a direct lightning hit.

MFJ-270. SO-239 to SO-239.
MFJ-270MF. SO-239-PL-259.
MFJ-270N. Low-loss N-type.
MFJ-97. Replacement gas discharge tube for MFJ-270.

MFJ-272
1500 Watts

MFJ-272
SO-239-[illegible]
MFJ-272N. N Connectors.
MFJ-272MF. SO-239-PL-259.
MFJ-97H. Replacement Gas Discharge tube for MFJ-272.

Reduce Harmonics, Avoid TVI with MFJ Filters

Low Pass TVI Filter Handles Full Legal Power

MFJ-704

MFJ-704 suppresses TVI, RFI, telephone and other interference by reducing unwanted harmonics going to your antenna.

At the same time your HF signal passes on through with low loss so you can snag that rare and exciting DX!

If harmonics are causing TVI problems, MFJ-704 can keep your neighbors happy while having fun with radio!

Nine Chebyshev poles, exclusive *TeflonDielectric Technology*™ capacitors, Hi-Q inductors, ground plane shielding and an RF tight cabinet give you excellent TVI and RFI protection.

These exclusive *Teflon Dielectric Technology*™ capacitors give extremely low loss and eliminate voltage breakdown and capacitor heating -- even at full 1500 Watts with a 2:1 SWR load!

Handles full legal power from 1.8 to 30 MHz. SWR is below 1.3 to 30 MHz into 50 Ohms. Attenuates above 40 MHz.

Measures a compact 3x3x9 inches. Handy mounting tabs.

200W Low Pass TVI Filter

MFJ-702B

Be a good neighbor. Put this Low Pass TVI filter between transmitter and antenna or tuner and reduce transmitter harmonics by 50 dB! Harmonics are a source of interference to your neighbor's TV, radio, VCR, telephone, etc. SWR below 1.5 to 30 MHz into 50 Ohms. Perfect for barefoot rigs -- handles 200 Watts with less than 0.5 dB insertion loss. Attenuation is 50 dB at 54 MHz. SO-239s. 3x2x1.5 inches.

MFJ-705

MFJ 2500 Watts Low Pass TVI Filter

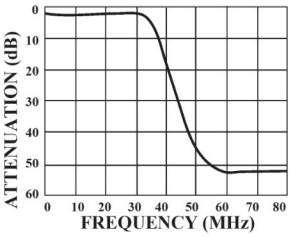
Suppress TV interference at the source with the MFJ-705 *Low Pass Filter*. Use between Transmitter and Antenna or Tuner. Reduces TV interference (TVI) radiated by transmitters operating below 30 MHz. Suppresses harmonics appearing in the TV bands. Additional attenuation to TV IF frequencies above 40 MHz. Low loss to 30 MHz.

Nine-pole inverse Chebyshev.

SPECIFICATIONS:

Passband: 0-30 MHz. **Cutoff freq:** 35 MHz. **Attenuation:** 52.25 MHz (Channel 2 Video), -60 dB, Worst case at 65 MHz, -60 dB. **Power Capacity:** 2500 W Key Down. - 50% Duty. **Impedance:** 52 Ohms. **Insertion Loss:** 0.25 dB @ 30 MHz. **Size:** 9 1/2Wx4 1/4Hx2 1/8D inches.

MFJ-705 Frequency Response



81dB Step Attenuator

MFJ-762

***This** will be your most useful ham shack accessory!*

Usable to 500 MHz. 250mW maximum input. BNCs. Shielded stages. Connect between receiver and antenna. Use an S-meter as a precision calibrated field strength meter. 50 ohms.

Prevent receiver blocking, cross-modulation. Determine gain/loss. Ideal for fox hunting. Evaluate linearity. Measure input/output level differences. Isolate circuits. Extend range of sensitive equipment. 6 1/2Wx2 1/2Hx1 1/2D inches.

MFJ Portable Signal Tracer-Injector

MFJ-5012

***Portable** Signal Tracer-Injector* quickly finds defective stages in all kinds of signal amplifiers, radio receivers and transmitters.

Search home theaters, hi-fi amplifiers, public address systems, guitar amplifiers, AM/FM/ TV transceivers, phones, scanners, shortwave, etc.

Find opens and shorts in cables and wires, identify and locate individual wires in multi-conductor cables.

Has AM detector and variable gain audio amplifier. 3Wx4Hx1D inches.

Tune-Up Matchmaker™

MFJ-212

Adjust your antenna tuner for 1:1 SWR without transmitting!

Avoids overheating/ arcing caused by high SWR, long tune-ups. Inserts between rig and tuner. Simply tune your rig to desired frequency, power the *MatchMaker*™. Adjust your tuner for a null in the pulsing "white noise" from your receiver.

Automatic T/R switch bypasses MFJ-212 to prevent damage. 300 Watts. All radios, 160-6 meters. 3 1/3x1 1/4x4". Use MFJ-1312D.

1-50 MHz MFJ Phase Meter

MFJ-222

Uses low power, high-speed dual comparator circuit to allow *precision* phase measurements 1-50 MHz. Indicates if unknown phase lags or leads reference signal. Built-in 50-Ohm load. Bright 2-line LCD allows precision readout of phase -180 to +180 degrees. 9V battery or 12VDC, 300M.

MFJ Power Supplies

Wold's Best and Largest Selection of Clean, NO RF Hash, no RFI power supplies are designed for ultra-reliable ham radio! High duty cycles on switchers for long Digital mode transmissions!

75-Amps.

MFJ-4275MV high-current switching power supply gives 75A max/70A continuous. Great for ALS-500M amplifier. Adjustable output 4-16 VDC/ 110/220 VAC. Binding posts, quick connects, *PowerPoles*(R), cigarette lighter socket on front. Battery charger gives charging current of 20A max, 5A continuous. 9¾Wx5½H x9½D". Only 10.5 lbs.

45-Amps.

MFJ-4245MV Switching power supply gives 45A surge/40A continuous. 9-15 VDC out. 85-260 VAC in. Low ripple, highly regulated. 5-way posts, cigarette lighter, quick connects. 5 lbs., 7½Wx4¾Hx9D".

25-Amps.

MFJ-4225MV Switching power supply gives 25A surge, 22A continuous. Adjustable 9-15 VDC output, 85-260 AC input. Large 3" dual Amp/Volt meters, binding posts, cigarette lighter socket. 3.7 lbs., 5¼Wx4½Hx6D".

Econo Price!

30 Amp, 4-16 Volts Adjustable, Volt/Amp Meter, 5Wx21/2Hx6D"

Ham Radio's Best Seller!

MFJ-4230MV is ham radio's best compact switching power supply -- just 5Wx2½Hx6D" and 3 lbs. Takes up little room on your operating position and perfect for home station, field day, DXpeditions, camping, hiking or for your next business trip or vacation. Gives 25A continuously or 30Amps surge at 13.8 VDC. Voltage is front panel adjustable 4-16 VDC. Selectable input voltage of 120 or 240 VAC at 47-63 Hz lets you carry it with you and use it worldwide. Front panel rocker switch lets you choose Amp/Volt meter for continuous monitoring. Cool operation with excellent 75% efficiency. Extra low ripple and noise is less than 100 mV. It's quiet! Continuous air flow gently cools the power supply and a heat sensor increases fan speed if the temperature rises above 70 degrees celsius. Over-voltage and over-current protection fully protects your transceiver and has ALARM LED. DC output is 5-way binding posts on the back so yourcan power your HF, VHF, UHF transceiver and accessories with ease.

Add a pair of *PowerPoles*(R) **MFJ-4230MVP.** *PowerPoles*(R) on back.

MFJ-4230MPF *PowerPoles*(R) on front of unit.

MFJ-4230DMP Like MFJ-4230MVP but has bright orange digital Volt/Amp display.

35-Amps.

MFJ-4235MV switching power supply. 35A surge, 30A continuous. 4-16 VDC, 1% voltage regulation. <9 mV peak-to-peak ripple. AC in: 90-125 or 200-240V. 7Wx4¼Hx8¾D", 4 lbs.

35-Amps.

MFJ-4035MV 19.2 lb. transformer, 35A max, 30A continuous. 1-14 VDC out, 110 VAC in. Highly regulated, 1% load, 1 mV ripple. 5-way posts, cig lighter. 9½Wx6Hx9¾D".

15-Amps.

MFJ-4115. 17A surge, 15A cont. 13.8 VDC. 110/220 VAC. 3¾Wx2¼Hx7¾D", 1.5 lb. 5-way posts. **MFJ-4215MV.** Like MFJ-4115 but has backlit volt/amp meters.

25-Amps.

MFJ-4125 gives 25A surge, 22A continuous. 13.8 VDC switcher has 5-way binding posts on front and quick connects on back. 3.5 lbs.

25-Amps.

MFJ-4125P. 25A surge, 22A continuous. 13.8 VDC switcher has 2-pair *PowerPoles*(R), 5-way posts, quick connects. 3.5 lbs.

28-Amps.

MFJ-4128. 28A surge, 25A cont. 13.8 VDC. AC: 85-135/170-260 VAC. 5-ways, cig sock. **MFJ-4218MV.** 0-24 VDC,18A@13.8/9A@24VDC.

MFJ Emergency PowerReady ™ Toolbox

Great for charging batteries and taking your rig *on-the-go*! It's ready for random travel trips, Emcomm service, or *when all else fails!* Dual power pole 35A contacts, binding posts, low voltage cigarette lighter, 5V 2.1A USB port, green LED digital voltage meter. Use group 24-30 size batteries. Carrying strap. Made in the USA!

MFJ PowerPole (R) Splitters

made in USA

MFJ-1104. *Power-Pole*(R) Splitter, 30 Amp fused input, outputs fused at 25, 10, 5A. Open fuse indicator. 2¾Wx3¼Hx1½D".

MFJ-1107. 40A fused binding posts input, 4 fused *PowerPole*(R) outputs, two 2.1 mm center positive jacks.

MFJ-1106. One in, six out *PowerPoles*(R). 30A total. 7 sets of mating conectors included.

MFJ High Current DC Multi-Outlet Strips

made in USA

Power multiple transceivers/accessories from a single DC power supply

MFJ-1118. Power two HF and/or VHF rigs and six accessories from rig's 12 VDC supply. 35A high-current and 15A accessory binding posts, Voltmeter, on/off switch. Master fuse, RF bypass. 12½Wx2¾Hx2½D".

MFJ-1116. Like MFJ-1118 but 15A total, 8 pairs 5-ways."On" LED, 0-25 VDC voltmeter.

MFJ-1112. Like MFJ-1116 but 6 pairs 5-way posts, no meter/switch. 12½Wx2¾Hx2½D".

MFJ-1117. High-current. Powers four HF/VHF radios simultaneously -- 2 at 35A each, 2 at 35A combined. 8Wx2Hx3D".

MFJ-1129. 10 outlets. Installed fuses: two 1A, three 5A, three 10A, two 25A, one 40A. Outlets 1, 2, 4-8 are *PowerPoles*(R). Outlet 3 is a 35A high current post, outlet 9, 10 are 15A posts. Switch, voltmeter. 12½Wx1¼Hx2½D".

MFJ-1128. 12 fused *Power Poles*(R), three 1A, four 5A, four 10A, one 25A, one 40A. Switch, Meter.

MFJ-1126. 8 fused *PowerPoles*(R): a 1A, three 5A, two 10A, one 25A, one 40A. Switch, Voltmeter. 9Wx1½Hx2¾D".

MFJ-1124. 4 pairs 35A PowerPoles(R), 2 pairs 35A high current posts.

MFJ-4416C Super Battery Booster

Keeps your transceiver operating at full efficiency and performance by eliminating low or marginal voltages in the mobile environment . . .

Today's compact 100-watt HF rigs are designed to operate from about 12-16 volts, with output signal distortion, output power problems, and transceiver reset often occurring when voltage drops below 12 volts. In mobile use, low voltage is caused in two ways:

First. Even low resistance DC wiring can result in a noticeable voltage drop. For a 100W transceiver with a 20-amp typical current requirement, just 1/10th of an ohm resistance in your DC cable and connectors results in a 2-volt drop!

And second. When the car is off, battery voltage drops from around 13.8 MFJ-4416C volts down to 12V after a short time. Coupled with voltage drops in cables and you have a problem.

Eliminates low voltage problems by boosting input as low as 9 Volts to 13.8 volts at up to 30A peak with a typical efficiency of close to 90%.

Includes *PowerPoles*™ and high-current 5-way posts for both the DC input and regulated output. An internal 30-amp input fuse protects the unit from excess output current demands.

Selectable limits on the minimum voltage that the unit will accept: 9V, 10V, and 11-volts. Protects from over-discharging a battery and damaging it. Includes output over-voltage crow-bar protection should regulation be lost.

External boost enable Input allows remote enabling of MFJ-4416C. Either ground a line or connect the line to 4-13 Volts. You can also use an amp key line or ignition source to enable.

Second efficiency enhancement feature is a user-adjustable output voltage control which lets you set output voltage between 12- and 13.8-volts.

When setting output at 12-volts, input voltages greater will pass thru, but efficiency of the regulator is higher. And lower input voltage means your transceiver will run cooler!

Typically save over 30W in heat dissipation during transmit, and even 3-4 watts during receive. So it can actually be good to let the voltage sag to 12V, then MFJ-4116B protects from lower voltages. 7¾Wx4Hx2⅛D", 1.3 lbs.

Battery Booster *Remote* Control

MFJ-4416BRC. Monitor output, turn on/off, low battery alert on/off, *boost/low battery* LEDs. Mount holes. Cat-5 cable connects booster. 5Wx2Dx3H".

Deluxe Super Battery Booster

MFJ-4418

Like MFJ-4416C but has an on-board microprocessor to give ...ient features ...and protection. ...ower switch allows load to be isolated from input, protecting from over current/voltage greater than 15V from boost supply or improper input. MFJ-4418 monitors input and will not turn on if it is not greater than 10V and less than 14.5V. Programmable value enables or shuts down booster supply as needed. Allows auto operation without keying connections to the radio. Programmable electronic fuse allows protection in 1A steps 5-30A. Use fast blow 100 mS or slow blow 100-700 mS. Ignition *HoldOff*™ timer allows MFJ-4418 to continue to supply output for a programmable period even if ignition is off. Settings are software-driven via the USB port. 9½Wx3⅛Hx5¼D".

MFJ-4403 Transceiver Voltage Conditioner

MFJ-4403

Provides reverse, over-voltage, voltage transient and short circuit protection. Superb noise, ripple filtering, power supply buffering. If you accidentally reverse voltage, it protects against instant destruction and alerts with warning LED. Once DC polarity is corrected, MFJ recovers, operates normally. *Transient suppressor* handles peak current to 200A. Protects from vehicle, poorly regulated supply voltage spikes. Four *Farads* of ultra high-value capacitors filters off virtually all noise and ripple. Provides power supply buffering so even underrated, marginal power supplies will run an HF transceiver to full capacity. *Powerpoles*™ used for DC input/output. 4Wx3Hx2D".

MFJ Mobile Transceiver Protector

MFJ-4402

Protects rig from unseen mobile problems. Built-in surge protection diode reduces chances of a high voltage spike due to alternator failure or jumping off from other vehicles. Reverse polarity protection. Sagging voltages on vehicle start-up can cause your rig to not power, lose memory channels, corrupt service/set-up menus. When vehicle is off there are still circuits that have power on them, so distortion, frequency shifting, modulation or no vehicle start-up. MFJ cuts your radio off if voltage gets too low. Delay timer off ignition sense insures your rig doesn't turn on until vehicle starts, normal voltage reached. *Power Poles*™, bayonet lug to ignition sense line. Over-current/reverse protection. 2⅞Wx4Hx1½".

MFJ Mobile Digital DC Voltage Monitors

Is your car battery giving proper voltage to power your rig?

Low voltages distort signals and cause ...xpensive rigs to reset or even shut down. Voltage monitors show car battery voltage at all times. Three 3/8" tall bright red LEDs easily seen day/night. Plug into a cigarette lighter and monitor! Use 12V or 24V batteries, 8-30 VDC, accuracy is +/- 1.2 VDC. Built-in fuse.

A. MFJ-4431. Adhesive mount display, 2' wire, 2⅝Wx1⅜Hx⅝D".

B. MFJ-4432. *All-in-one* plug/module, 1½Wx1Hx2¾D".

MFJ-4434. 12VDC Cigarette Lighter Socket to red/black binding posts adaptor. Fused. 1.5Wx.75Hx4D inches.

4.5-30 VDC/30A Digital Volt/Amp Panel Meter with built-in Current Shunt

Connect in-line to monitor voltage/current of mobile radio or accessories.

MFJ-4422

Shows voltage/current simultaneously with .01 to .1V resolution. Dual .28" red/blue LED digits. Built-in current shunt, input/output *PowerPoles*™, 30A. Reverse polarity protect. 3Wx2Hx1D".

MFJ-4421. Snap-in Volt Panel Meter, 0-30 VDC. .56" digits. 1.9Wx1.1Hx.87D inches.

Precision Wattmeter/Power Analyzer

MFJ-4424

Displays A/V/W continuously, 4.8-60V. Measure current, peak, power, peak. *Power-Poles*™, backlit LCD. 3.25Wx1.75H".

MFJ Millenium ™ CW Memory Keyer

MFJ-495

MFJ-495 combines latest millenium microprocessor technology with non-volatile EEPROM memory for a full-featured, low cost, high reliability design. Send CW or load messages with paddle, keyboard or serial port.

Easy-to use menus and LCD let you set all keyer functions with easy push buttons. Keyer functions also are changed from paddle, keyboard or computer. LCD shows messages as it's sent from memory or live from your paddle, keyboard or computer.

32-message memories of 256 characters each. Repeat messages continuously, insert timed pauses within messages, insert auto-incrementing serial number, messages call other messages, insert embedded commands to change speed, weight, automatically.

Supports direct and grid-block. Port for optional remote control. PTT output, speaker, sinewave sidetone.

Features include:

Iambic keyer with dot/dash memories; auto, semi or hand-key mode.

Keyboard uses any AT keyboard for type ahead buffer. All commands and memories are keyboard controlled.

Message editing capability.

Input queue stored multiple messages.

Auto-incrementing contest serial numbering from 001 to 9999.

Digital/linear analog speed control from 5 to 99 wpm (3:1 to 20:1 speed range)

Farnsworth, speed from 10-99 wpm

Ultra speed messages to 990 wpm

Adjustable weight 25% to 75%

Adjustable sidetone 300-1000 Hz

Keying output delay up to 20 ms

Push-to-talk (PTT) hang time to 5sec

Direct (pos.)/grid-block (neg.) keying

Timed tune for XMTR adjustment

Timed pauses, messages loops

Internal speaker, adjustable volume

Supports Qwerty/Dvorak keyboards

190 characters type-ahead keyboard buffer with low buffer warning

Dual user mode. 6 1/4Wx2 1/2 Hx6 1/4D". 12 VDC or 110 VAC. **MFJ-1312D**.

RFI-Suppressed Keyboard

MFJ-551. RFI suppressed keyboard.

Remote Control Unit

MFJ-70. Full function wired remote control for MFJ-495.

MFJ ECONO Keyer

MFJ-401E

MFJ-401E is like MFJ-407E except weight and tone are adjusted internally, doesn't have tune switch. Use 9 volt battery or 110 VAC w/MFJ-1312D. 4x1 3/4x3 1/4".

Build Your Own Keyer with this Curtis Chip

Revolutionary Curtis Chip. Choose 28 pin skinny DIP or SMT SOIC package. **MFJ-8045ABM**.

Pre-Wired Keyer-to-Rig Cable

MFJ-5164. Keyer-to-radio keying cable. Phono on keyer end fits MFJ keyers and 3.5 mm with 1/4" phone adaptor fits most transceivers.

MFJ Curtis Iambic Keyer

MFJ-407E

Get everything you need to send great CW from this *MFJ Cutris* Keyer™! Has easy-access front panel controls, *all* keyer modes, dot-dash memories, jam-proof spacing, weight control, sidetone, built-in speaker and more. Speed, weight, tone and volume controls, and tune, semi-auto and on/off switches are on the front panel. Dual paddle key lets you use *iambic mode*. In this mode, you can insert a dot before a dash finishes or insert a dash before a dot finishes. Squeezing both paddles generates alternating dots and dashes. Lets you send characters such as C, K, and R with a single squeeze. Turns an inexperienced fist into a professional. Use 9V battery or 110 VAC. MFJ-1312D. Compact 5 3/4x1 3/4x4 3/4 inches.

MFJ/Curtis Keyer/Paddle

MFJ-422E

Get the combo or just the keyer for your MFJ iambic paddle. Get adjustable weight, tone. Front panel volume, speed controls (5-65 wpm). Built-in dot-dash memories, speaker, sidetone and auto or semi-auto/tune modes. Keys solid state or grid block. Fully shielded, RF tight. 9V battery or 110 VAC with **MFJ-1312D.** 4x2 1/4x4 1/4".

MFJ-422EX. Keyer only slides onto MFJ-564/B, Bencher, other paddles.

Deluxe Memory Keyer/Paddle

MFJ-490. 5-100 wpm. Contest serial numbering (0-9999) with auto-increment, sidetone, speaker, volume control, adjust 300-3000 Hz tone. Adjust weight 5-95%, key direct or grid-block, 192 character (8K) memories.

MFJ-490EX. Keyer only.

MFJ Micro CW Telegraph Keys

MFJ-566M
Black with Metal Base

MFJ-566P
Black plastic

MFJ-566M is red and black on a 3/8 inch thick aluminum non-skid base. It is liquidy smooth, has shielded steel ball bearings and a hardened steel pin rotation with stainless steel screws. Solder connections with solid brass contacts and custom micro-grip feet.

MFJ-566P Like MFJ-566M but on a durable black plastic base.

MFJ Deluxe Wood base Telegraph Key

MFJ-553

Deluxe wood base telegraph is a Morse Code straight key on a non-skid, beautifully stained wood base. A Steel underplating makes it stay put on your table, doesn't move around while sending! Designed by KA5MAN, this key lets you send code at home, work, riding in your car -- practically anywhere. Pre-wired 3 foot cable with 3.5 mm plug. Hook-up the key to your rig and go on-the-air sounding like you were born for CW! A handsome addition to any shack.

MFJ Deluxe Iambic Paddles

MFJ-564/B

Chrome or Black

MFJ *Deluxe* iambic paddles feature full range adjustments in tension contact spacing, self-adjusting nylon and steel bearings, contact points that never need cleaning, precision machined frame, non-skid feet, heavy base. Use with MFJ-422E/490E/X keyers.

MFJ mini Iambic Paddle

MFJ-561

Lightweight iambic weighs just 2 1/2 oz. Tiny, fits in *Altoids*(R) tin (cord and all!). Precision formed phosphorous bronze spring material, A150 temper. Great feel, mounted on metal with non-skid rubber feet. 4-foot cord.

MFJ-561K Kit. ***Build it!***

Pocket Travel Keyer/Paddle

MFJ-403P

Full-featured CW keyer with built-in iambic paddle. Ultra-compact 3 3/4Wx1Hx 2 1/4D" is perfect for traveling or home QRP. Put it in your briefcase with an MFJ *Cub*™ transceiver on your next business trip or vacation. Built-in sidetone with LM386 audio amplifier, speaker/volume control makes monitoring sending easy. Adjust speed 3-60 WPM, pitch 300-1000 Hz, weight 25%-75%. Tune mode, RF proof, Battery Saver. Select Iambic A/B, fully auto or semi-auto "bug" modes. Use 9V battery, not included.

Morse Code Reader has Built-in Memory Keyer

Working high speed CW is a breeze. With MFJ-464 you get a type-ahead buffer, message memories, adjustable speed. Get ready to compete with the best hi-speed CW ops, they'll never know you never took a code test! MFJ-464 is the ultimate CW Station: sends and reads 5-99 WPM, Auto speed tracking, large 2-line LCD shows send/receive messages, use single or iambic paddle or keyboard, 4 message memories, type ahead buffer, read again buffer, RFI proof . . . more!

MFJ-464

Reader has Auto Speed Track

MFJ *AutoTrak*™ auto locks on, tracks and displays CW to 99 wpm. Simply plug in MFJ-464 to your receiver speaker until lock LED flashes in time with the CW.

High performance modem

Consistently get solid copy from a high performance *PLL* (*phaselock loop*) modem. Digs out weak signals. Even tracks slightly drifting signals. Send CW, load messages using a paddle, keyboard or computer serial port.

The LCD also shows the message as it's being sent from memory or live from your paddle, keyboard or computer.

Sinewave Sidetone . . . More!

Supports Direct keying output. Has PTT output, built-in speaker, sinewave sidetone, more! Iambic keyer with dot/dash memories; auto, semi or hand-key mode. Input queue lets you store multiple messages. Auto-incrementing contest serial numbering from 001 to 9999.

Outstanding Features

Digital linear speed, 5-99 wpm
Farnsworth, speed 10-99 wpm.
Ultra speed sets up to 990 wpm.
Adjustable weight 25% to 75%.
Adjustable sidetone 300-1000 Hz.
Keying output delay to 20 mS.
Push-to-talk hang time: 5 seconds.
Timed tune function: XMTR adjust.
Timed pauses in messages.
Internal speaker, adjustable volume.
Qwerty & Dvorak keyboards.

Type-Ahead Buffer

190 character type-ahead keyboard buffer with low buffer warning.
Keyboard Input Use any AT keyboard to program functions & memories.
Compact metal case, 6¼Wx2½Hx6¼ D". 12VDC/110VAC, MFJ-1312D.

MFJ-464 Accessories

MFJ-5161. MFJ-464 to computer serial port cable (DB-9).
MFJ-5162. Connect MFJ-464 to radio's external speaker 3.5 mm jack.
MFJ-5163. Connect MFJ-464 and other accessory to radio speaker.
MFJ-5164. Keyer to radio keying cable. Phono plug on keyer end to fit keyers. 3.5 mm plug with 1/4" phono adapter to fit most transceivers.
MFJ-551. RFI suppressed keyboard. A must for hams to avoid RFI problems in the shack when operating high speed CW keyboard mode.

Classroom Code Oscillator

MFJ-554

For demanding classroom use. It gives a true pure *sinewave* sidetone with no trace of harsh keyclicks. Hear the clearest, sweetest sounding CW you have ever heard. Delivers 1 Watt into its built-in 3-inch speaker -- fills an entire room with glorious sounding Morse code. Low distortion -- less than .2% total harmonic distortion from its BTL (Bridge-Tied-Load) amplifier. Volume control, 400-1000 Hz tone adjustment, on/off switch, power LED, ¼ inch key jack, 3.5 mm speaker jack, use 12 VDC. 4¾Wx1½Hx5D inches.

Classroom Morse Tutor

MFJ-414

For VECs, Elmers, teachers, ham clubs, schools. Has everything in the famous MFJ-418 *Pocket Size Morse CodeTutor*™ plus.

Hear powerful classroom audio from its built-in speaker/amplifier with true sinewave sidetone and no harsh keyclicks. Download/upload custom practice groups from your PC with serial port . . . Store 16 FCC exams for VECs . . . Print correct answers using printer port . . . Record quality code tapes with tape output . . . Send *on-the-air* CW practice with a HF/VHF radio.

Practice Oscillator plus Key

MFJ-557

Practice sending code at home, work, in the car, on the picnic table -- anywhere. Volume adjusts barely audible to full sound.

Practice without bothering anyone.

Tone control for wide adjustment, from high "squeaky" to low "booming" tones. Earphone jack is 3.5 mm. Use external speaker like MFJ-281 for high classroom volume. Use 9V battery (not included) or 110 VAC with optional MFJ-1312D. Plugs into jack on the side. When you're done testing your sloppy fist, hook MFJ-550 to your transmitter and go *on-the-air*. Compact 8½x2¼x3¾ inches.

MFJ-550, Telegraph Key.

MFJ-550
Telegraph key only

Pocket-Sized Morse Code Reader

Is your CW rusty?

Relax and place this pocket sized MFJ Morse Code Reader near your receiver's speaker . . . watch CW turn into solid text messages as they scroll across a large, bright LCD display. Use as backup in case you miss-copy characters - - it makes working high speed CW a breeze - - even if you're rusty. Practice by copying along with MFJ-461. Learn the code or increase your speed as you instantly see if you're right or wrong. *AutoTrak*™ automatically locks on, tracks, displays CW speed to 99 WPM. 140 characters can be instantly replayed. Re-read or check copy. Consistently get solid copy from MFJ's high performance PLL (phaselock loop) modem. Digs out weak signals. Even tracks slightly drifting signals. Serial port lets you display CW text full screen on a computer monitor -- use computer port, terminal program. Uses 9V battery (not included). Tiny 2¼Wx3¼Hx1D". 5½ oz.

MFJ-461

Accessories

MFJ-26B. Soft leather protective pouch for MFJ-461.
MFJ-5161. Serial port cable (DB-9).
MFJ-5162. Connect MFJ-461 to rig's 3.5 mm speaker jack.
MFJ-5163. Connect MFJ-461 and another accessory to your radio's external speaker 3.5mm jack.

Pocket-Sized Morse Code Tutor

MFJ-418

Practice copying, then instantly replay to check copy on the LCD. ARRL/VEC format. Go from beginner to CW PRO! Having trouble with certain characters? Build and save 3 custom sets of 16 characters for constant practice. Practice copying *realistic* plain English QSOs. Select letter, number, punctuation, FCC character sets, numbers, prosigns, random call signs, words, QSOs or combo sets -- *you'll never run out of study material!* Select normal/Farnsworth spacing. Farnsworth makes it easier to learn *entire* words. Stop counting individual dots and dashes! Change speed 3-60 wpm. Check copy, select from menus and program characters, words on 2-line LCD with 32 *huge* 1/4" high-contrast characters -- a *powerful learning tool!* Variable pitch 300-1000 Hz. Tiny 2¼x3¾x1", just 5½ oz. Use 9V battery (not included). Tapes play the same boring stuff over and over. You'll *never* memorize MFJ's random sessions.

Code Tutor Accessories

MFJ-26B. Soft leather protection for MFJ-418 with pocket/belt clip LCD window.
MFJ-281. External communication speaker for loud, powerful audio. 3¾x3x2¼ inches.

Switch any two Mics to any two Rigs

MFJ-1263 *Microphone Control Center* lets you mix and match *any* two microphones to *any* two radios.

Mics or rigs can have 8-pin round or 8-pin modular connectors. Your microphones will never become obsolete. Use your favorite microphone with your present *or* new rig by pushing a button.

Switch from hi-fi ragchewing mic to hard-hitting DX mic when needed. Plug in PTT foot switch (MFJ-1709) or let computer or voice keyer (MFJ-434B) control PTT line for contests/DXing.

Plug in a boom mic/headset to save the day during noisy field day or multi-operator contesting. Plug in your headphones or external speaker. **Headphone** volume control eliminates need to readjust rig volume when you switch the speaker on. Phones always active. Push button turns speaker on/off. When you want to use your desk or hand mic just push a button.

MFJ-1263

Input jack , On/Off switch provided to insert external audio into the mic audio iline. Great for sound card, SSTV, AFSK, TNC, other sources.

MFJ-1263 works with any radio using an 8-pin round or modular mic jack. 6Wx1½Hx5D". Includes *1* MFJ-5398 and *1* MFJ-5397MX cable.

MFJ-1261. Like MFJ-1263, 1 mic input, two radio outputs.

MFJ-1260. Like MFJ-1263, 2 mic inputs, one radio output.

MFJ-1261/1260/1263 cables. MFJ-5398, 8-Pin Round; MFJ-5397MX, 8-Pin Modular.

MFJ Contest Voice Keyer

MFJ-434B

Call CQ, send calls, make contest exchanges with the push of a button. Save your voice -- store frequently used phrases like "CQ Contest this is AA5MT", "You're 5-9", "QTH is Mississippi", "CQ Contest".

Record and play back 5 natural messages in 75 seconds. Repeat messages continuously for a voice beacon, delay 3-500 seconds. Receive audio jack for record/play off-the-air signals.

Mic characteristics do not change. Dual controls tailor audio to match your voice. Audio lines RF filtered to eliminate RFI, feedback and distortion.

Built-in 3.5 mm speaker, headphone jack. 9V battery, 9-15 VDC or 110 VAC with MFJ-1312D. 6½Wx2½Hx6½D".

MFJ-73. Remote Control box.

Speech Intelligibility Enhancer

MFJ-616

As we get older, high frequency hearing loss reduces ability to understand.

Research shows nearly *1/2* intelligibility is in 1000-4000 Hz, but contains only 4% of energy. Frequencies, 125-500 Hz has most energy at 55% but contribute little to intelligibility, 4%.

Balance control and separate 2½W amps equalize perceived loudness.

***QST* for April, 2001 said ...**

"expected subtle effect at best, but astonishingly, results were clean speech without hissing, ringing, other effects..."

RFI immune. Phone jack, on/off speaker, 2 inputs, bypass switch. 10Wx2½Hx6D". Needs 12 VDC.

MFJ-618. Like MFJ-616, *but has separately* adjustable frequency channels for left and right ears.

FlexNeck™ Desk Microphone

MFJ-297

High-sensitivity ceramic mic element, 10.5" bends to comfortable operating position. On-Air indica volume control. Blinks when receiving and wi continuously on transn PTT momentary/lock switches. Use with mo modern transceivers.

MFJ-299 is like MFJ-297, but adds built-in graphic equalizer with center frequencies of 270, 540, 1000, 2000 Hz. Frequency up/down switches let you operate your rig at your microphone. 4 function keys (CALL, VFO, MR, PF) not applicable for all radios. Pre-wired cables are available for MFJ-297/299 for Icom, Yaesu, Kenwood and other compatibles using 8 pin round and 8 pin modular microphone plugs. See cable page.

Deluxe Hybrid Phone Patch

MFJ-624E

Get crisp, clear, hum-free audio. What phone patching is all about. Jumper selectable for Kenwood, Icom, Yaesu, Alinco rigs with 8 pin mic connectors. Use VOX or push-to-talk. RF pi-filters and PC board eliminates RF feedback. VU meter monitors line levels preventing cross talk. Adjust null depth for maximum isolation between rig. Separate XMTR/receiver gain controls eliminate readjusting after patching. *Null*control, standard phone connection, RJ-11. Speaker jacks, audio in/audio out. 8x2x6". 12VDC, 9V battery or 110 VAC with MFJ-1312D. Includes cables for 8 pin round or modular mics.

Universal Microphone Converter

MFJ-1251

Convert *any* 8-pin round or 8-pin modular microphone for use with *any* 8-pin round or 8-pin modular transceiver or accessory. **Example:** Use your Yaesu 8-pin round microphone with an Icom 8-pin modular rig. Or perhaps you've got an 8-pin modular soundcard interface, but now you have an 8-pin round microphone transceiver? Save money! Use what you've got! Internal jumpers set *any* microphone to match *any* transceiver. Supplied with one 8-pin round and one 8-pin modular output cable to transceivers. Compact all-metal construction fits anywhere.

MFJ PTT Foot Operated Switch

MFJ-1709

Keeps your hands free for logging, computer operation and tuning. Reduces fatigue and improves efficiency -- the difference between winning or losing contests. Normally open switch. 2½Wx3½Dx1¼H". Non-skid pad. 1/4 in. phone. 10 ft. cord.

GooseNeck™ Microphone Holder

MFJ-390

• Heavy-duty metal base stays put!
• *GooseNeck*™ for super flexibility • Tough, Durable plastic microphone clip holds tight! • Turns your favorite handheld microphone into a super desktop mic!

MFJ Cleartone ™ Speaker

MFJ-281

Bring out speech fidelity that you never knew existed. Restore the smooth sound of sinewaves that CW naturally generates and make it easy to understand and copy. Improves the intelligibility of speech in the range of 600-4000 Hz while reducing noise. 3-inch speaker, 8 Watts. 8 Ohms impedance, 6 foot cord with 3.5 mm mono plug. 3¾x3x2¼", but powerful sound!

MFJ-280 is tiny! 2½x2x3" mobile speaker matches 8 and 4 Ohm impedances, 3 Watts. Tough ABS plastic.

MFJ Amplified Speaker

MFJ-383

MFJ-383 is perfect for the rigorous mobile environment. Great clarity, clear tones on CW/SSB. Swivel mounting bracket and fused plug for cigarette lighter socket. Large 2¾" speaker has a 3-inch fine metal mesh grill that helps reduce undesirable noise. 6 Watts output, 8 Ohms impedance. 8' cord, 3.5 mm mono jack with 13' cord, on/off power, gain control. Use 12 VDC at 2A for max volume, max 1W source.4¾Wx3½Hx1¾D inches.

Communication speaker is 1-watt amplified speaker. Great clarity and clear tones on CW/SSB. Superb, loud and powerful *Clear-Tone*™ audio. Speaker baffle is a whopping 3" diameter. Volume is adjustable from barely audible to booming classroom volume. Sturdy, compact metal cabinet with non-skid rubber feet. 3½x1¾x4½". Use 9V battery or 110 VAC with MFJ-1312D option.

Amplified Base Speaker

MFJ-382

MFJ CyberEAR™

MFJ-388

Capture, amplify sound by 12dB! Vol. cntrl, on/off, plugs, battery included. **MFJ-389.** Like MFJ-388 but up to 50 dB!

MFJ Noise-Canceling Filters Wipe Out Interference

Wipe out noise & interference before it gets to your receiver with a 60dB null!

MFJ-1026

Eliminate all types of noise!!! Null out severe power line noise from arcing transformers and insulators, fluorescent lamps, dimmers, touch controlled lamps, computers, TV birdies, lightning, garage door openers, electric drills, motors, industrial processes.

Much more effective than a noise blanker because interference much stronger than a desired signal is removed without affecting desired signal.

All modes -- SSB, AM, CW, FM, frequences from BCB to lower VHF.

Null out strong QRM on top of weak rare DX ! Null out a strong local ham or AM broadcast station to prevent your expensive receiver from overloading.

Use as an adjustable phasing network. Combine two antennas to give you a powerful receive station and have a variety of directional patterns.

Null out a strong interfering signal or peak a weak one at the push of a button. It's so easy-to-use!

The MFJ-1026 simply plugs between your transmitting antenna and your transceiver. To null, you adjust the amplitude and phase potentiometer controls for a minimum S-meter reading or low noise. To peak, push reverse.

Use a built-in active antenna or an external one. MFJ's exclusive *Constant Amplitude Phase Control*™ makes nulling super easy -- let's you go snag that rare DX you have been missing.

RF-sense T/R switch automatically bypasses your transceiver when you transmit. You have an adjustable T/R delay time. Use 12 VDC or 110 VAC with optional MFJ-1312D. Measures a compact 6½X1½X6¼ inches. RF tight.

MFJ-1025. Lke MFJ-1026 but less he built-in active antenna. Use externa.

Tunable Super DSP Filter

MFJ-784B

Auto-matically eliminates heterodynes, re-duces noise, interference simultaneously -- SSB, AM,CW, packet, Amtor, PACTOR, RTTY, SSTV, WeFAX, FAX, weak signal VHF, EME, satellite.

MFJ's tunable FIR linear phase filter minimizes ringing, prevents data errors and has "brick wall" filter response with up to 57 dB attenuation 75 Hz away.

5 tunable DSP filters. Tune each low-pass, highpass, notch, and bandpass filter including optimized SSB/CW filters. Vary bandwidth, pinpoint and eliminate .

Noise reduction works in all filter modes and on all random noise -- white, static, impulse, ignition, power line, hiss.

LMS algorithm gives you up to 20 dB of noise reduction. Noise reduction is adjustable to prevent signal distortion.

2½W amplifier, volume/level controls, speaker jack, PTT sense, line level output. 9½x2½x6". Plugs between Xcvr or receiver and speaker/headphones. 12 VDC or 110 VAC with MFJ-1312D.

Tap into Secret Signals

MFJ-462B

Wonder what those mysterious chirps, whistles, and buzzing sounds are on the shortwave bands?

It's RTTY, ASCII, CW, AMTOR (FEC) signals passing commercial, military, diplomatic, weather, aeronautical, maritime, amateur and other traffic.

Plug into your shortwave receiver's earphone jack. Watch mysterious signals turn into exciting text as it scrolls across an easy-to-read 2-line LCD.

Copy most standard shifts and speeds in all modes. *AutoTrak*™ Morse speed tracking helps MFJ-462B to track and decode high speed CW. Use 12 VDC or use 110 VAC with MFJ-1312D AC adapter. 6¼Wx2½Hx6¼D".

MFJ-5162. *Receiver cable* connects MFJ *MultiReader*™ to your radio's external speaker (3.5mm jack).

MFJ-5412. *Printer Cable* is 25-pin cable for Epson compatibles.

MFJ-5163. Speaker "Y".

MFJ Shortwave Receiver Kit

MFJ-8100K

Remember hunching over your receiver for hours with headphones pressing uncomfortably against your ears? Hear anything that fancy superhets can hear. Sure, you had to play around with controls and have a steady hand but you could hear 'em.

Hear international shortwave broadcasts, hams on SSB and CW, WWV, RTTY, packet, more. Covers all or part of 75/80, 49, 40, 30, 31, 20, 25, 22, 19, 17, 16, 15, 13 Meters in five bands.

Range A covers: 3.51-4.31 MHz, Range B: 5.95-7.40 MHz, Range C: 9.56-12.05 MHz, Range D: 13.21-16.4 MHz, and Range E: 17.6-22 MHz.

Vernier reduction drive, bandswitch, volume/gain controls, use 9V battery.

2 earphone jacks let you and your grandchild listen together with earphones or speakers. 7Wx6Hx2½D".

MFJ-8100W. Receiver wired and tested, *ready-to-operate!*

LW/MW/SW Preselector

MFJ-956

MFJ-956 boosts your favorite listening stations while rejecting images, intermod and phantom signals. Greatly improves your reception from 0.15 to 30 MHz, especially below 2 MHz. Super easy to operate, select bandswitch and tune!

Has Tuner Bypass and Ground Receiver positions. All black aluminum cabinet is a super compact 2x3x4 inches with stay-put rubber feet.

Input/Output SO-239 connectors.

Receiver/Ant. Tuner/Preamp

MFJ-959C

Don't miss rare DX due to signal power loss between your receiver and antenna. The MFJ-959C provides proper impedance matching to transfer maximum signal from antenna to receiver. Covers 1.6 to 30 MHz. 20 dB preamp with gain control boosts weak stations. 20 dB attenuator prevents overload. Select from 2 antennas and 2 receivers. Measures 9x2x6 inches. Use 9-18 VDC or 110 VAC with MFJ-1312D.

All-Band XCVR/Preselector

MFJ-1040C

Copy weak signals, reject out-of-band images 1.8-54 MHz. Get up to 20 dB gain, gain control. Cascode FET/bipolar transistor for low noise, high gain with attenuator. Connect 2 antennas, 2 receivers. Auto bypass when transmitting to 125W. Delay control, push-to-talk. 6½Wx2½Hx4D". Use 9-18VDC/110VAC with MFJ-1312D.

MFJ-1045C. Like MFJ-1040C. No attenuator, XVR auto bypass, delay or PTT.

High Dynamic Range Passive Preselector Can't Overload

MFJ-1046

Passive Preselector has extremely high dynamic range! Improves performance of any transceiver. Vastly improves most expensive receivers, especially helpful to broadband front-ends prone to overload.

Protects sensitive receivers from damage from very strong signals: multi-transmitter, multi-band ops -- contests, field-day, hams, CBers, TV/FM/AM.

Eliminates phantom signals by suppressing out-of-band signals causing intermod, blocking, cross modulation. Eliminates 2nd order intermod.

Narrow bandwidth, excellent stopband attenuation, very low loss, constant bandwidth, gain over each band.

Excellent attenuation in adjacent bands. 1.6 to 33 MHz.

An air variable tuning capacitor, 1.8 to 1 tuning range and a vernier reduction drive gives you precision tuning.

Use 12 VDC or 110 VAC with optional MFJ-1312D. 7½x2½x3¼".

MFJ-1048. Like MFJ-1046, but *adds* RF sense transmit, receive switch with adjustable delay, PTT line Transmit and Receive switching.

Indoor T uned Active SWL Antenna Covers 0.3 to 40 MHz

MFJ invented the tunable active antenna! New technology uses cascode FET/bipolar transistor and a gigahertz bandwidth buffer

MFJ invented the tunable active antenna! Numerous copies have been made without success. **Why?** Because MFJ has made continuous improvements where others have not.

New technology uses a cascode FET/bipolar transistor and a gigahertz bandwidth buffer. Improves gain and selectivity, reduces noise and intermod, and is NOT prone to self-oscillations that can severely damage your receiver.

Rival reception of outside wire antennas hundre long, pick up sig and clear all ove

World Radio Handbook says is a *"fine value . . fair price . . . best offering to date . . . performs very well indeed."*

MFJ's unique

MFJ-1020C

tuned circuitry minimizes intermod, improves selectivity and reduces noise outside the tuned band. You can also use it as a tuned preselector with an external antenna.

Covers 0.3-40 MHz including VLF, AM broadcast, shortwave and all of ham radio. Tune, Band, Gain, On-Off/Bypass. Use 9V battery or 12 VDC/110 VAC with MFJ-1312D. 6Wx2Hx5D".

MFJ-1022. Like MFJ-1020C, not tuneable, 0.3 to 200 MHz.

MFJ 54" Active Outdoor Antenna

MFJ-1024

World Radio TV Handbook says MFJ-1024 is a *"first rate, easy-to-operate active antenna . . . quiet . . . excellent dynamic range . . . good gain . . . very low noise factor . . . broad frequency coverage . . . excellent choice . . ."*

Mount it outdoors away from electrical noise for maximum signal and minimum noise. Has convenient mounting holes for easy installation.

Covers 50 KHz to 30 MHz. 20 dB attenuator, gain control, ON LED.

Switch selects two receivers and auxiliary or active antenna. Inside control unit is a compact 6Wx3Hx5D".

Remote unit has a 54" telescopic whip, 50' coaxial terminated with PL-259. Outdoor box is 3Wx2Hx4D". Use 12 VDC or 110 VAC with MFJ-1312D.

MFJ SSB/CW Adventure Transceivers and Accessories

MFJ-90XX. Superhet receiver brings in the weakest signals in at full blown volume. Tight CW bandwidth crystal ladder filter fights unwanted QRM, noise to the max. Wide-spaced reduction drive VFO capacitor glides slowly across the easy-to-read dial. RIT control has center-detent -- makes listening or calling off-frequency a snap! Smooth AGC tracks only signals you want to hear -- it never locks onto strong signals outside the audio bandpass. *Instant Recovery AGC*™ snaps the receiver back at full gain after transmitting. 3" speaker driven by 100 mW of audio gives great volume. Motorola power amplifier transistor delivers full QRP, tolerates opens, accidental shorts without damage. Pure 700 Hz CW sidetone makes sending as much fun as receiving! Adjustable hold transmit/receive switch for normal sending speed or set or full QSK for contests. 50 mA average receive and 1.2 amp peak on transmit. Perfect for battery operation in remote locations!

Choose your favorite band!

MFJ-9040 covers 7.000-7.150 MHz.
MFJ-9030 covers 10.100-10.150.
MFJ-9020 covers 14.000-14.075.
MFJ-9017 covers 18.068-18.110.
MFJ-9015 covers 21.000-21.200.
MFJ-726. Narrow audio filter .
MFJ-412. Curtis Chip Keyer Module .

MFJ-92XXK. *QRP-Cub*™ rigs use SMT to achieve big performance.

The kit version has all SMT parts mounted and soldered. You just insert and solder the "through-hole" parts like connectors, inductors and trimmer caps.

Designed by QRP-ARCI hall-of-famer K1BQT for real world low-power operating conditions. Buy all or choose 80, 40, 30, 20, 17, or 15 Meters. Specify band in "XX" of model number.

Hot receiver, 0.2 uV sensitivity, low noise, sharp passband crystal filter, Differential mode AGC, rock steady, over 80 dB signal range, robust AF output, 2 Watts thru 20 Meters, 1W, 15/17M.

Power adjustable to zero, full QSK for smooth break-in, natural sidetone, shaped keying, custom TX offset, receiver passband center, low power drain. Tiny 3¾Wx1½Hx4½D". Wired unit has *No Matter What*™ warranty.

MFJ-93XXW .
Wired & tested cub transceiver. Specify band in "XX" portion of model #.

Use MFJ QRPocketTM Accessories with your Cub transceiver for even more fun CW Adventures. MFJ-9201 Antenna Tuner, MFJ-9213 SWR/Wattmeter, MFJ-9231 Artificial Ground, MFJ-9232 Loop Antenna, MFJ-18XXT Telescopic Walk-a-bout specific band antennas.

MFJ-94XX. W eak stations roll in surprising clarity, faithfully reproduced by a single conversion receiver. MFJ's exclusive *Constant Current*™ speech processor cuts thru noise and QRM. Take this performance along on your next vacation or business trip! Rig, mic, power supply, and antenna easily fit in a briefcase. No microprocessor mumbo-jumbo -- on air in minutes! Quiet double balanced mixer front-end, single conversion clarity and plenty of gain. A real calibrated S-meter makes adjusting an antenna tuner or finding the best beam heading clear-cut. 8 poles of tight IF filtering cuts chatter and focuses power where needed. No synthesizer jump or obscure keypad commands! Effort-less tuning, custom reduction-drive ball-bearing capacitor. Special Signetics audio chip and rugged 3" speaker deliver. one Watt audio output at 10% THD. 50-100 mA receive, 1.2A peak on transmit @13.8 VDC. 6½Wx2½Hx6D".

MFJ-9406 covers 50.0-50.3 MHz.
MFJ-9410 covers 28.3-28.6 MHz.
MFJ-9412 covers 24.890-24.990.
MFJ-9415 covers 21.200-21.400.
MFJ-9417 covers 18.08-18.17.
MFJ-9420 covers 14.150-14.350.
MFJ-9440 covers 7.150-7.300.
MFJ-9475 covers 3.750-4.000.
MFJ-415B. CW mod, 9420/9440.
MFJ-416. CW mod, 9406/9410.

200 Watt Tuner matches 90 series transceivers!

MFJ-971. 200 Watt PEP Antenna Tuner also has 6 Watt range setting for QRP. Covers 1.8-30 MHz. 4:1 Toroid Balun is built in for balanced lines. Stackable with your MFJ-90 Series Transceivers.

MFJ Folded Dipole Antennas

Single band, *lightweight*, folded dipoles are perfect for MFJ QRP rigs. Low SWR, direct coax feed, 200 Watts. **MFJ-1774B** (40); **MFJ-1773B** (30); **MFJ-1772B** (20M); **MFJ-1771B** (17M); **MFJ-1770B** (15M); MFJ-1770C (10M); **MFJ-1776B (6M).**

Portable Regulated AC Power Supply

MFJ-4110. This portable regulated AC power supply connects to MFJ 90's transceivers for power on the road, in the hotel room, etc. LED shows when power is applied. Output is 13.8 VDC at 1.2 A. 110V adapter is included.

Portable Power Pack

MFJ-4114. AC Power supply plus portable battery pack. Use Ni-Cd or alkaline D cells (not included). Match MFJ 90's rigs. Output is 13.8 VDC at 1.2 amps. Voltage regulated. Built-in Ni-Cd charging circuit.

FT-817, KX3, other QRP rig Accessories

MFJ Walkabout Antenna 80 through 6 Meters

MFJ-1899T

Work DX walking about!

This MFJ *Walkabout* antenna is designed for the FT-817, KX3 and other QRP rigs.

Covers all bands 80 Meters through 6 Meters including WARC Bands.

MFJ-1899T has ten sections, telescoping whip is 52 inches fully extended and is 7 inches when collapsed.

The whip unscrews from the 12 inch base loading coil. It is ultra-compact for easy traveling. Handles 25 Watts.

You change bands by plugging the "wander lead" into the appropriate band socket on the base coil antenna.

Fine tuning is done by adjusting the telescopic whip up and down.

Has BNC connector. Use MFJ adapter for SO-239, won't harm your radio connector.

Single Band Walkabouts 6/10/12/15/17/20/30/40/80

6/10,12,15,17,20 M 30/40/80 Meters

Highly efficient single band *Walkabout* antennas for FT-817, KX3 and QRP rigs let you work exciting DX *no matter where you are -- hotel, mountain top, etc.!* Each 10 section telescoping whip is 51 inches fully extended and collapses to 5 1/2 inches and screws into a base loading coil. Handles 25 Watts. Has BNC connector.

PL-259-to-BNC *right angle* Adapter

MFJ-7703. Reenforced elbow for less stress on radio connector.

MFJ-1806T (6M)
MFJ-1810T (10M)
MFJ-1812T (12M)
MFJ-1815T (15M)
MFJ-1817T (17M)
MFJ-1820T (20M)
MFJ-1830T (30M)
MFJ-1840T (40M)
MFJ-1880T (80M)

10 oz. Switching Power Supply for Yaesu FT-817 and QRP Rigs.

MFJ-4103 *Miniature Sw Supply* can deliver up to 4 (13.8 VDC at 2.89 Amps) able power anywhere in tl world.

Incredibly tiny -- 4 1/8X 2 5/8X1 3/8" and weighs just 10oz., including power cord, connector. Output DC cable, standard coaxi DC power connector (2.1 ID, 5.5 mm OD).

Sturdy adapter cable included for Yaesu radios.

MFJ-4103

MFJ-4103 has excellent specs and out performs all other power supplies made for the FT-817. Perfect for QRP rigs up to 2.89 Amps.

Works for input voltages 100-240 VAC and power line frequencies 47-63 HZ.

Use the MFJ-4103 almost anywhere in the world by plugging in an AC power cord with an appropriate wall plug for that country (Not included. Laptop computer AC cord recommended).

Overvoltage, overcurrent and overtemp protected. Excellent 1% line and 5% load regulation and 1% peak to peak ripple/noise. Op temperature is 0-40° C.

Mean time between failure is 100,000 hours at full load at 25° C ambient.

Meets FCC part 15 class B, UL 1950 and CSA 22.2.

QRP Antenna Tuner, SWR/ Wattmeter & Dummy Load

MFJ-9219. *The headline says it all!* This tiny box is all you need besides the radio. A handy dry dummy load for testing, 1.5 inch SWR/Watt-meter and a 20 Watt antenna tuner! BNCs. 5Wx4Hx3D inches.

New!

QRPocket™ Antenna Tuner

MFJ-9201. 80-10 Meters, 25 Watts. Custom 12-position inductor switch, tune/ bypass switch, antenna, transmitter capacitors, BNC feedpoints for antenna and transmitter. Tiny 4Wx2 5/8H x1 1/2D inches so it, your rig and antennas easily fit into a backpack or briefcase to go with you to field day, a DX-pedition, vacation or business

QRPocket ™ Loop Antenna/tuners

MFJ-9232. Tiny *QRPocket*™ Loop Antenna/Tuner makes portable operation truely portable and fun!

No ground needed! This high-efficiency loop covers 40-10 Meters with the included flexible wire loop. Handles 25 Watts PEP. BNC connector for transmitter, two wing nut posts for loop wire connections, tuning/matching capacitors. Durable hard plastic cabinet is a tiny 2 1/4Wx4Hx2 1/4D".

MFJ-9234. *Right.* Like MFJ-9232 loop antenna/tuner but MFJ-9234 connects directly to the back of your favorite QRP rig.

QRP Wattmeter/Dummy Load

MFJ-9218. MFJ *QRPocket*™ SWR/Wattmeter has 0-20 variable power range on a calibrated meter scale. Tune/Bypass switch, BNC input/ outputs. Built-in dry dummy load. Covers 1.8 to 50 MHz. Compact 4 1/2Wx2 1/4Hx2 3/4D inches.

QRP SWR/Wattmeter

MFJ-9213. Read forward and reflected power in 3 ranges: 5, 30, 100 Watts on a calibrated meter scale. Read SWR, relative power from 0-5 Watts. *Bruene-style* bridge circuit detects both RF current/RF voltage, insures uniform accuracy,1.8-50 MHz, BNC in/out. 4 1/2Wx2 1/4Hx2 3/4D inches.

MFJ QRP Pocket ™ Artificial Ground

MFJ-9231. Places your QRP rig near *actual earth ground* potential *no matter where* you are. Electrically places a far away RF ground and lets you operate 1.8-30 MHz safely. Hook rig to ground, adjust counterpoise and tune for max current. 2Wx3Hx1D".

QRP WattMeter/Dummy load

MFJ-9214. Check *true* QRP output with this sensitive QRP Wattmeter. *Built-in* 50 Ohm load for testing rig. Reads 5W full scale 1.8-150 MHz. BNC male fits directly to your HT. 2Wx2 1/4H x1 1/2D". Fits in pants pocket!

MFJ-7737. BNC female to PL-259 adaptor.

Pocket ™4:1 Balun

MFJ-9211. When using a *balanced line* antenna with your QRP transceiver, don't forget your 4:1 MFJ current balun. It has five way binding posts for your balanced line connection and a BNC connector to your transceiver. Tiny sized for carring in the backpack.

MFJ Remote/Digital/Packet Interfaces

MFJ-1234C

https://www.mfjenterprises.com/Product.php?productid=MFJ-1234C

RigPi trademarked, Howard Nurse, W6HN. Raspberry Pi is a trademark of the Raspberry Pi Foundation.

Apple iPhone connected to RigPi Station Server from anywhere via the Internet

Remotely operate using any web browser on phones, iPad, tablet, laptop, even a Kindle!

Use nearly any rig with CAT control, old or new. Operate all modes SSB, CW, FM, digital. Control from anywhere via the internet using any browser -- radio, rotor, CW keying, VoIP, digital modes, logging, spot monitoring, callbook lookups, more.

Operate digital modes including FT8 and RTTY. WSJT-X, Fldigi are installed.

Look-up calls using included FCC database or optional QRZ XML subscription, monitor DX spots,watch for unworked or unconfirmed calls, design, maintain multiple logs, upload ADIF logs to ARRL LoTW server, send CW from a mobile device, keyboard or paddle, 32 programmable macros.

Single-click updating, I/Q Input for SDR radios, onboard VoIP server gives outstanding audio, includes email, word processing, spreadsheets, 1000's of Linux programs, modify and program RigPi Station Server using a text editor.

One browser can control a radio while a second can control another radio. 2 or more hams from different areas can operate different rigs with MFJ-1234C.

RSS is a Raspberry Pi™ computer running Linux and RigPi Keyer and Audio boards. RigPi Keyer uses K1EL WinKeyer3 integrated circuit. RigPi Audio used for VoIP for remote and I/Q spectral display (Panadaptor).

RSS radio/rotor control by Hamlib, a library of over 200 radios and 30 rotors.

MFJ-1234CMB. Box, firmware.
MFJ-1234CMA. Box, audio board.
MFJ-1234CKB. Keyer board only.
MFJ-1234CAB. Audio board only.
MFJ-1234CSD. SD Card only.
MFJ-1307. 5V, 3A Power Supply.
MFJ-1234CC. Metal chassis only.

- RigPi forum is *https://rigpi.groups.io*
- RigPi website is *https://rigpi.net*

MFJ-1205

Includes radio cable

MFJ-1205 is exceptionally easy to setup and use. However, simplicity doesn't mean compromised performance.

Advanced features:

Full USB connectivity, powered by USB port, dedicated on-board sound card, quick *plug-and-play* connect-ivity, incredibly easy to adjust and operate, works with all digital modes, dozens of free downloadable programs, innovative circuitry eliminates delay control, complete line of interface cables, low cost, small size, lightweight, perfect for base station, portable, or "go-kit" apps.

Initial no-solder jumpers take only a second to install, and once in place, they're locked in until you decide to change radios. To hook up, simply connect the MFJ-1205 to any free USB port on your computer and plug the appropriate interface cable into the back of your radio. *That's it!*

No need to disconnect the microphone or fumble around with patch cords to get started. Front-panel controls set Receive and Transmit levels, and there's no front-panel "Delay" to adjust because the MFJ-1205 controls your radio's PTT line using a unique internal detector circuit.

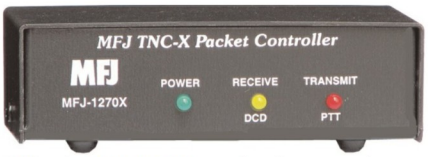
Transmit and receive using traditional modes such as CW, RTTY, SSTV, AMTOR, PSK31, and EchoLink, or explore newer modes like MT-63, WINMOR, WSPR, and WSJT-X. In fact, new experimental modes are emerging all the time. If your radio can pass the signal and computer can run the mode's online software, MFJ-1205 sound card and computer will handle the rest!

Just select a cable configured for your radio, plug it in, and go. The signal path between the radio and computer is completely isolated against ground loops and common-mode noise.

Interface cables are available for all modern transceivers and older units. See cable page.

Most Popular:

MFJ-1205MD6, Yaesu 6 pin mini din.
MFJ-1205D13I, Icom 13 pin din.



MFJ-1270X

Just connect your FM radio and computer and the world of digital packet radio is yours to enjoy.

TNC-X is a self-contained TNC, not a computer sound card interface that ties up your computer's resources. TNC-X is a KISS mode TNC. Works with any packet software program supporting KISS mode. KISS makes it extremely simple to use. No complicated menus or parameters to adjust.

USB port works with all major computer systems including Windows (all after 95, including 64-bit), Mac OS X, OS 8 and 9, and Linux. It also supports a separate conventional serial port.

Built-in active audio filter substantially improves demodulation. Supports true software DCD. Leave squelch of radio connected to TNC-X open for very fast transmit/receive turnaround.

TNC-X is perfect for APRS™. Fully supported by virtually every mapping program. Provides a low cost mechanism for mapping other radio stations.

TNC-X contains an expansion header that allows you to add daughter boards to provide new capabilities. Convert TNC-X into a modern digipeter. Compact $5^{1}/_{8}$Wx$1^{1}/_{2}$H$3^{1}/_{4}$D".

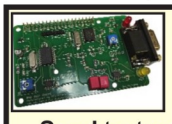
Plug-and-play . . . compatible with all MFJ TNC cables and A to B USB.

MFJ-1270DG. Plugs into TNC-X's expansion header and makes it a stand-alone full-featured digipeter. Use WIDEn-N paradigm for APRS™.

When operating as APRS™ digipeter, X-Digi has the capability to trap and eliminate duplicate reports, substantially reducing congestion on frequencies. Send up to 4 different beacons, with its own text, and interval.

X-Digi is remotely configurable over the air. You can change virtually every digipeter parameter without ever having to revisit your remote site. Password protection ensures that no one else will tamper with your digi's settings.

X-Digi will never be obsolete. Firmware upgrades available free by the internet. No equipment required to flash the updated code into your X-Digi.



Got Pi?!

MFJ-1270Pi

***Raspberry Pi™* TNC**

Send text messages and emails over-the-air using ham radio! Plug MFJ-1270Pi onto your Raspberry Pi™. You get a tiny, operate-anywhere, messaging system! Build an iGate, Digipeater, RMS gateway, and more! Use free software such as Xastir, LinBPQ, or APRx.

Pre-Wired Radio-to-TNC Cables

Take all the hassle and soldering out of wiring your rig to your MFJ TNC with these prewired radio cables.

Model#	Description
MFJ-5080	Yaesu 8 pin round microphone to MFJ TNC, 5-pin DIN
MFJ-5080M	Yaesu 8 pin modular mic to MFJ TNC, 5-pin DIN
MFJ-5084	Icom 8 pin round microphone to MFJ TNC, 5-pin DIN
MFJ-5084M	Icom 8 pin modular microphone to MFJ TNC, 5-pin DIN
MFJ-5086	Kenwood 8 pin round mic to MFJ TNC, 5-pin DIN
MFJ-5086M	Kenwood 8 pin modular mic to MFJ TNC, 5-pin DIN

Pre-wired Accessory Port-to-TNC cables . . .

TNC TYPE / Radios ACC Port	MFJ TNC/MMC PK900/PK12/DSP23 2/PacComm/TNC2s	KAM VHF KAM HF KPC3	KPC-9612
ICOM HF 8 Pin DIN	MFJ-5063	MFJ-5063YH	----------
ICOM VHF 8 Pin DIN	MFJ-5064	MFJ-5064YV	MFJ-5064YV
ICOM 706 13-Pin DIN	MFJ-5065	MFJ-5065YH MFJ-5065YV	MFJ-5065YV
KENW/YAESU, AZDEN VHF 6-Pin mini DIN	MFJ-5060	MFJ-5060YV MFJ-5060YQ	MFJ-5060YV
KENW HF 13-Pin DIN	MFJ-5066	MFJ-5066YH	----------

Open End Cables with Radio Connnectors

MFJ-5082. 8 pin round mic.
MFJ-5106. 6 pin mini DIN.
MFJ-5205. 5-pin DIN. MFJ TNC.
MFJ-5208. 8 pin DIN. Acc. Port.
MFJ-5213. 13-P DIN, Acc port.
MFJ-5220. Yaesu FT-50R.
MFJ-5222. Split conn. Alinco.
MFJ-5224. IC/YA/AL/RS HTs.
MFJ-5226. Kenwood HTs.
MFJ-5268. 8 pin modular mic.

MFJ Computer Printer, Serial & USB Cables

MFJ-5412		Printer Cable, 36-Pin Centronics - DB-25 male, 6'
MFJ-5414		Serial Cable, DB-25 male to DB-9 female, 6 feet
MFJ-5413		Serial Cable, DB-25 male to DB-25 female, 6 feet
MFJ-5409		Serial Cable, DB-9 male to DB-9 female, 6 feet
MFJ-5408		Serial Cable, DB-9 female to DB-9 female, 6 feet
MFJ-5419		Serial Y-cable, DB-9 female to (2) DB-9 male, 8"
MFJ-5430		USB A Male to USB B Male, 6 foot cable, beige.

MFJ-1205 & MFJ-1234C Prewired cables

MFJ-1204 w/cable	Add'l Cable	Description
MFJ-1205P4	MFJ-5704P	For 4-Pin Round Mic Connector
MFJ-1205P8	MFJ-5708P	For 8-Pin Round Mic Connector
MFJ-1205J11	MFJ-5711J	For RJ-11 Mic Connector
MFJ-1205J45	MFJ-5745J	For RJ-45 Mic Connector
MFJ-1205D5	MFJ-5705D	For 5-Pin DIN Data / Accessory Port Connector
MFJ-1205D8	MFJ-5708D	For 8-Pin DIN Data / Accessory Port Connector
MFJ-1205D13I	MFJ-5713DI	For ICOM 13-Pin DIN Accessory Port Connector
MFJ-1205D13K	MFJ-5713DK	For Kenwood 13-Pin DIN Accessory Port Connector
MFJ-1205D13K1	MFJ-5713DK	Kenwood 140/450S/850/870/950/57D/590S/660/2000
MFJ-1205D13K2	MFJ-5713DK	Kenwood TS-440/690
MFJ-1205D13K3	MFJ-5713DK	Kenwood TS-940
MFJ-1205MD6	MFJ-5706MD	For 6-Pin mini DIN Data / Accessory Port Connector
MFJ-1205K3	MFJ-5700K3	For Elecraft K3's rear panel Audio In/Out & PTT jacks
MFJ-1205KX3	MFJ-5700KX3	For the Elecraft KX3's Mic and Phones jacks
MFJ-1205K	MFJ-5700K	For various Baofeng, Wouxun and Kenwood HTs
MFJ-1205R	MFJ-5700R	For various Yaesu HTs including the FT-60R, VX-8GR
MFJ-1205UT	MFJ-5700UT	For building your own cable (bare wires on radio end)
MFJ-1205P4	MFJ-5704P	For USB to rig sound card interface with 4 pin

MFJ TNC2 2400 Baud Modem

MFJ-2400. 2400 baud packet modem for MFJ and TNC2 compatibles. Lessens congestion on crowded bands with faster communication. Still gets 300/1200 baud for other TNC compatibility.

MFJ Cigarette Lighter Cable

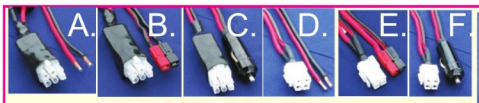
MFJ-5510C

Plug in your favorite MFJ accessories or others and operate them off of your automobile's 12 VDC cigarette lighter socket with a 3 Amp fuse.

Has a 2.1 mm center positive DC coaxial plug.

Or operate direct from your power supply in the hamshack! Provides power to your MFJ analyzer, keyer, meter or tuner lamp, etc.

Make quick adjustments to HF/VHF/UHF mobile antennas with your analyzer in hand! 18" retracted curly cord, 60" fully stretched.



HF Power Cords

A. MFJ-5535. MFJ-5535 replaces your HF radio power cord at a fraction of the original cost. Two *super-flex,* 12 gauge, multi-strand, soft wires 8 feet in length. It has two in-line fuses/holders. Keyed plug prevents reverse polarity. 6-pin type Yaesu, Icom, Kenwood, compatibles.

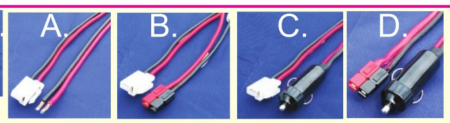
B. MFJ-5535M. Same as MFJ-5535 but with *Anderson PowerPoles®*.

C. MFJ-5535C. Same as MFJ-5535 HF power cord but has cigarette lighter plug. No fuse/holder.

D. MFJ-5538. Heavy duty replacement power cable for IC-7000, Kenwood TS-480, and other compatibles. Keyed plug prevents reverse polarity. Has 4-pin connector with 9 foot, 12 gauge, red and black flexible cord, and inline fuses/holders are also included.

E. MFJ-5538M. Same as MFJ-5538 but with *Anderson Powerpoles™*.

F. MFJ-5538C. Same as MFJ-5538 but with Cigarette lighter plug.



VHF/UHF Power Cords

A. MFJ-5512. Two *super-flex,* 14 ga., 15' multi-strand, soft wires. *In-line* fuse/holder. T-connector. Yaesu, Icom, Kenwood, Alinco.

B. MFJ-5512M. Same as MFJ-5512 but with *Anderson Powerpoles™*.

C. MFJ-5515C. VHF/UHF power cable. Cigarette lighter for car, T-connector for rig. Built-in 20A fuse, 3 feet.

D. MFJ-5515M. *Lighter plug* & *PowerPoles™*. Auto DC ou. 20A fused, 2-flex 12 ga. multi-strand, soft wires, 3'.

DC Accessory Cables

1. MFJ-5510C. Lighter plug w/2.1 mm coaxial. 12VDC, 3A fused, 3 foot.

2. MFJ-5510M. Lighter plug to *Anderson Power Poles™*, 3A fused, 3'.

3.MFJ-5511M like #2, 30A, 5'.

4. MFJ-5513M. 2.1 mm, and *PowerPoles™*, DC ouput, 12VDC.

5. MFJ-5513. 3 foot, 2.1 mm pigtail powers popular MFJ keyers, tuners, analyzers, and accessories.

PowerPole (R) Adaptor Cables

Super-flex, 12 ga. red/black zip cord.

A. MFJ-5514M. #10 ring lugs to *PowerPoles*(R) connect to power supply binding posts. No shorting out. 35 A, 3'.

B. MFJ-5541M. Red/black bananas to *PowerPoles*(R), 15A, 3 feet.

C. MFJ-5542M. Dual binding post to *PowerPole*(R) adaptor. Fits standard $^{11}/_{16}$" post spacing. 30A, 3 feet.

D. MFJ-5544M. *PP* ext. cable, 35A, 3'.

E. MFJ-5543M. *Powerpole*(R) cable with pre-tined wires. 35A, 3 feet.

PowerPoles® with 30A/45A contacts

MFJ-11C06. 6 pair, 30 Amps.
MFJ-11D06. 6 pair, 45 Amps.
MFJ-11C12. 6 pair, 30 Amps.
MFJ-11D12. 12 pair, 45 Amps.
MFJ-11C25. 25 pair. 30 Amps.
MFJ-11C100. 100 pairs. 30Amps

MFJ-7602. Tool for crimping *Power-Poles®*.

MFJ 24/12 Hour Clocks

Dual Displays: 24 and 12 Hour Clock

MFJ-108B

MFJ-108B dual clock has separate 24 hour and 12 hour displays. Read both UTC and local time simultaneously. Features huge high-contrast 5/8" LCD numerals that are easy to read from across the room. Mounted in an attractive solid brushed aluminum frame with a sloped face for easy viewing. Synchronizable to UTC. Quartz controlled for excellent accuracy. Long life button batteries included. 4½Wx1Dx2H".

MFJ-107B. Single 24 Hour clock in brushed aluminum frame. *(Right).*

MFJ DXer's 24 Hour Wall Clocks

MFJ-115. Set this 24 hour Quartz clock to UTC/ GMT and you'll determine the time in any time zone of the world at any time of the day. Premier world cities encircle its colorful world map face to indicate time zones. 12-inch face looks fantastic. Seconds hand.

MFJ-105D. *This is the world's most popular ham radio wall clock!* True 24 hour Quartz movement. Huge 12-inch black face with large white numerals let you read it from across the room. Gold colored hour, minute, seconds hands. Looks great on any hamshack or other wall!

MFJ-126B. 12 hour Quartz movement gives 12 hour time on inner dial and 1200 to 2400 hour time on its outer dial. Attractive clean, white face is highly visible. Handsome black trim shows 24 hour time format, looks great in any hamshack or other room in the house.

MFJ-131RC. Read 24/12 hour time at a single glance on dual time displays! 12-inch diameter atomic wall clock can be seen from across the room! Liven up the shack and auto receive WWVB. Red second hand. *Real* glass white face with black trim is highly visible.

MFJ Unique Ham Radio Clocks

MFJ-112B. This *DXers World Map Clock* shows you the time at any QTH throughout the world on an attractive LCD world map. Also shows day of week, month, date and year. Time displays hour/minute/second. Choose 12/24 Hour. Easy push-buttons move you east and west on the map to display a QTH in every time zone. Daylight saving time feature. Attractive grey. *Cool blue* backlight for night viewing. Great for gift or use as logging clock. 4½Wx3⅜Hx2¼D".

MFJ-137RC. HUGE 14" twelve (12) hour clock is a monster! It's why many are used in hospitals and schools across the USA! MFJ-137RC automatically sets itself and is accurate to the second! DST mode can be disabled. Handsome black with white face is great in a hamshack, office, hospital, etc. AA battery, not included. Can also manually set.

MFJ-117. 12/24 hour clock has the biggest and brightest LEDs of any clock we have ever seen! *2.5"* LEDs! Perfect for decreasing eyesight. 12/24 hour switch. Wall/desk mount. Handsome black cabinet, 12Wx7½H". Use 9V battery for backup. Hour/min. set buttons. 110 VAC, 60 Hz. Great for sight impaired.

MFJ-113. Switchable 12/24 hour with *HUGE* 1.8" red LEDs. 3½Hx9Wx2½D". 9 min. ID timer, alarm, 9V battery back-up. 110 VAC, 60Hz.

MFJ-158RC. Wireless *Projection* Alarm Clock features 24/12 hour radio-controlled time, date, and indoor temperature on a colorful, display with HUGE 1⅛" digits. Time and Indoor Temperature can be alternately projected in *easy-to-read* red digits onto the ceiling or wall of a darkened room. Integrated USB charging port lets you charge your phone or other devices when plugged in an outlet.

MFJ-122RC. Unbelievable features at a low price! HUGE 1" high digits, auto-controlled pinpoint accuracy, 24/ 12 hour select, DST on/off, 5-minute ID (snooze), blue backlight, month/date display, indoor thermometer (32-122 degrees F), moonphase, use two AAA 1.5V batteries (not included) 3½Wx4Hx1¾D in.

MFJ-133RC. LCD travel clock shows 2 time zones at once. Show UTC, local or other dual time format! 24/12 hour. Atomic-controlled. HUGE 1⅛" high-contrast numerals easily seen. Super compact 4Wx3Hx¾D". Attractive silver clock folds up and slides in your shirt pocket for great travelability.

MFJ-136RC. *Solar-powered* 24/12 Hour atomic clock never needs batteries, large LCD (time digits 1⅝x2¼") and gives precision accurate time from WWVB automatically. Bright green LCD display shows day date and time and second time zone. Handsome desktop size, 3Wx4¼Hx1½D inches.

MFJ-130BRC. 24/12 hour wall/desk mount atomic clock. It has HUGE 1⅞" digits!. Handsome silver and black base with a bright green LCD that looks great in the shack. Month, date, and day and indoor temps. Get all the info you need to carry on a great QSO with your buddies.

Radio Controlled 24/12 Clock with ID Timer!

MFJ-148RC

MFJ-148RCis specially designed for amateur radio.

Two independent atomic 24/12 hour clocks with exclusive UTC time zone and *dedicated Station ten minute ID timer*.

Uses a *single time base* to keep both clocks perfectly synchronized. Radio control keeps perfect time.

Each clock is independently set for 12 or 24 hours, time zone and DST on/off. Set one clock on 12 hours for local time and the other on 24 hours format for UTC.

Turn DST off on the UTC clock and you will never have to worry about time changes messing up the UTC time again.

Never forget to ID again. Built-in 10 minute station ID timer with LED and buzzer alerts. Timer resets by a simple press of the timer switch.

HUGE 5Wx1.5H LCD display with LED backlights. Flip stand for desk display and mounting hole for wall mount. Uses two AA batteries (not included). Sexy black hard plastic cabinet is 6.5Wx3.5Hx3/4D inches.

Dual Time Atomic Clock

MFJ-121B, $119.95. Read UTC, local *at-a-single-glance.* 24/12 hours, independently set. Auto backlight, handsome silver-metallic frame. HUGE, 1Wx2H" LCD numerals, *exclusive* UTC zone, running seconds display. 11⅜W x7¼Hx1D". Wall or desk mount. Daylight savings can be disabled in each clock. Use 4 AA batteries (not incl).

Solar Power *Eternity* Clock

MFJ-123B, $79.95. MFJ's exclusive MFJ-123B works for an "eternity"! No need for batteries or to set time! Receives WWVB. Whopping 3½Hx6¼ W" with huge 2-inch time digits. 24/12 hours, indoor temp, running seconds, month/date and day-of-week displays. 9½Wx6¼Hx1D". Attractive silver metallic. Power on/off switch when not in use.

MFJ Jumbo 24/12 Hour Atomic Clock

MFJ-139RC

Has giant 4" digits and MFJ's exclusive *True UTC*™ time! MFJ-139RC is solar powered so you'll never need any batteries. Use 24 or 12 hour time format and you get *TrueUTC*™ time zone plus 8 other time zones including Hawaii and Puerto Rico. A push button lets you select GMT or other time zone on the time zone map. Daylight savings time on/off, indoor thermometer, hygrometer shows indoor temp/humidity. Displays month, date and day of week. Desktop or wall mount. 15¾Wx10¾Hx3/4D". Beautiful metallic tan and bright LCD display looks great anywhere!

MFJ-890 DX Beacon Monitor

Get up-to-the-minute worldwide DX band conditions in minutes on 14, 18, 21, 24, 28 MHz using the International Beacon Network of 18 transmitters around the world!

MFJ's DX Beacon Monitor shows which beacon is transmitting on the International Beacon Network -- an LED lights on a world map shows you the beacon location and where to point your antenna. **It's** fascinating to watch each beacon location light up as they activate across the world. For DXers, contesters, ragchewers and SWLers.

The International Beacon Network consists of 18 beacons around the world. Each transmits on 14.1, 18.11, 21.150, 24.93 and 28.2 MHz. Each frequency, each beacon transmits for ten-seconds -- its call sign at 22 wpm CW and a one-second dash at 100 watts and 3 one-second dashes at 10, 1, and 0.1W.

MFJ-890

When each beacon completes a transmission it goes silent on that band and switches to the next higher band.

More info: see Oct/Nov, 94, Sept, 97 *QST* and Jan 1999, Sept/Dec 2001, Jan 2002 *Practical Wireless* of U.K.

The more dashes you hear per beacon, the better the quality of propagation and the more robust the band is. If you hear the 100 milliwatt dashes from many beacons you know *it's wide open!*

***In** just three minutes* you'll know how band conditions are worldwide.

The *MFJ DX Beacon Monitor* has a *built-in WWVB atomic clock receiver* to provide ultra precise synchronization with the GPS-synchronized beacons. You also may manually sync the Monitor (the Monitor is not a receiver).

Self-contained standalone unit. 6¾Wx5¼Hx3D". Use 12 VDC or 110 VAC w/optional MFJ-1312D. No antenna/radio connection required.

MFJ Micro ATV Transmitters

Tiny *Micro ATV Transmitter*™ lets you transmit a high quality Amateur Television video signal on 433.97 MHz (cable channel 58, 59, or 60). Just plug in an antenna and a video source -- camcorder, camera, VCR or other.

MFJ-8708

With an antenna and a TV set (or down converter/TV) tuned to cable channel 58, 59, or 60, you got an *ATV station*.

MFJ-8708 puts out a solid 50-100 mW signal, capable of transmitting up to 1.8 miles with a 3-element beam. Using a suitable UHF power amplifier and high-gain antenna, you can enjoy two way ATV communications over many miles with fellow ATV ham radio operators.

***Micro** ATV Transmitters*™ can only be operated by a Technician class or higher licensed Radio Amateur. All transmissions must be directed to at least one other licensed Radio Amateur.

MFJ-8704

MFJ-8708, $239.95. Four channel: cable channels 58, 59, 60 and test channel. Just 1½ ounces, less battery. Has audio and video inputs.

MFJ-8704, $179.95. MFJ-8704 is for cable channel 59 video only. Weighs only one ounce, less battery (battery, quarter not included).

MFJ-8709

Super high performance ATV transmitter module is capable of putting out a *whopping 4.5 Watts!* RF output is controlled by an analog potentiometer from near zero output to 4.5W max. Current draw varies with power selected. Frequency control is a digital integer-N, phase-locked loop. Dual PLLs provide frequency locked video and audio sub-carrier. Frequency selected via 4-position switch. U.S. ATV frequencies 426.25, 427.25, 434.00, and 439.25 MHz on channels 58, 59, 60. Transmitting over 0.5W requires external heatsink. Reverse polarity protected. Specifications: ***www.mfjenterprises.com***

MFJ Speaker Mics for Yaesu, Icom, Kenwood and Wouxun HTs!

Top quality handheld speaker mic fits snugly in your hand! It's perfect for new Yaesu, Icom, Radio Shack, Kenwood, Alinco and compatible HTs.

Gives booming receive audio so you can monitor stations while mic is attached to your lapel -- no more holding the speaker up to your ear! 2Wx3Hx1 1/4D".

High-quality non-directional electret condenser microphone gives your handheld crystal clear transmit audio.

MFJ-295 has -53 dB sensitivity and 1K Ohm impedance. Excellent top quality speaker produces 83 dB of crystal clear, booming audio. 8 Ohm impedance. 3.5 mm earphone jack.

PTT thumb switch with an 8-position swivel lapel clip rotates 360 degrees. 3 1/2 ft. durable, stretchable cord.

MFJ-295Y. Newer Yaesu single prong plugs like Yaesu VX5R, Icom Q7A.

MFJ-295I. Icom, Radio Shack, Alinco, ADI and compatibles.

MFJ-295K. Kenwood, Wouxun, Alinco and compatibles.

MFJ-295R. Yaesu VX-7R.

Speaker/Mic with Volume Control

MFJ-296I. Icom, Radio Shack, older Yaesus, other compatibles.

MFJ-296Y. fYaesu FT50R, VX5R series.

MFJ-296K. Kenwood, Wouxun, Alinco, compatibles.

MFJ-296R, Yaesu VX7R.

Speaker/Mic Plugs

Replacement HF Handheld Mics

Dynamic HF replacement handheld microphones are for HF base and mobile transceivers. Replace your lost or old, beat-up Icom, Kenwood, Yaesu, or other mics. Gives PTT and quality mic audio. Heavy-duty construction, extra long, spiral flexible cord. Specify MFJ-290K/Y/I/T/E for 8-pin round. K is Kenwood, Y is Yaesu, I is Icom, T is Tentec, E is Elecraft. MFJ-290MI for Icom modular, MFJ-290MK for Kenwood, MFJ-290MY for Yaesu. MFJ-290K4/Y4/I4/T4 for 4-pin round mic connector.

HandyPal ™ HT MicEarbuds

MFJ-301. Monitor and hear in a noisy environment without bothering anybody. Foam bud fits in ear, doesn't hurt. Fits 3.5mm jack.

MFJ-302. Like MFJ-301 but soft earloop wraps around entire ear. Natural-sounding audio, cuts background noise.

MFJ *Compact* Magnet Mounts

Put your flexible duck on the roof of your car! Tiny but powerful magnet is 2 3/4 inch diameter.

MFJ-332S. SMA female. 12 feet of tough, flexible RG-58AU coax with SMA male end.

MFJ-332B. Like MFJ-332S but BNC female with BNC male coax.

MFJ HT Rubber Duck & telescopic antennas

MFJ-1717. *World's best selling HT antenna!* Enjoy super dependable QSOs. Only 15 3/4" in length, it's a 1/2 wave on 440 MHz with a hearty 2.15 dBi gain. On 2M, it's an efficient full-size 1/4 wave for full size performance. Precisely factory tuned for low SWR. High-Q, low loss construction gives you maximum radiated power! BNC connector. *Rugged!* It'll take all the bending, twisting, flexing and tugging you can dish out, and just pop right back up. Durable synthetic rubber compound with a hard protective safety tip. 25W PEP.

MFJ-1717S. Like MFJ-1717, but has male SMA connector.

MFJ-1717SF. Like MFJ-1717S, has female SMA.

MFJ-1717SZ. Like MFJ-1717S but with SMA male and is *"bendable"*. Bend into any shape, tie it into a knot.

MFJ-1717SFZ. SMA female connector, Wouxun/Baofeng.

MFJ-1716. 144/440 MHz like MFJ-1717, but only 7 1/2", 1/4 wave 440 MHz and loaded 1/4 wave on 2M. BNC.

MFJ-1716S SMA male.

MFJ-1716SF. Baofeng/Wouxun HTs. SMA female.

MFJ-1714. For *really long range*, this endfed 1/2 wave 2M is hard to beat! Outperforms 5/8 wave because the 5/8 wave needs a ground plane. 10.5" collapsed, 40" extended gives you a ***LongRanger***™!

MFJ-1714S. Like MFJ-1714,SMA.

MFJ-1714SF. Baofeng/Wouxun HTs.

MFJ-1712. Telescopic 144/440 MHz is a 1/4 wave on 2M, 5/8 wave with gain on 440 MHz. 4 1/2" collapsed. 16" extended.

MFJ-1712S. Like MFJ-1712, SMA male.

MFJ-1712SF. Baofeng/Wouxun HTs.

MFJ-1710. *PocketLinear*™ is a pen-sized 3/8 wave 2M! Carry in shirt pocket like a pen with a clip. Extend to 24". BNC. 5 1/4" collapsed.

MFJ-1710S. Like 1710, SMA

MFJ-1719/MFJ-1719S/SF. Truly amazing for its size! Less than 1" tall, it's great for traveling and monitoring calls. It doesn't get in your way! 2 Meter/440 MHz. Also receives at 1200 MHz. **MFJ-1719** has **BNC**, MFJ-1719S has **SMA** male. **MFJ-1719SF** has SMA female connector, fits Wouxun Handhelds.

Back of radio 144/440 Base Antenna

MFJ-1717PL. Plug into a 2M/440 MHz mobile/ base rig. Not a 10-element yagi but it'll get out in a hurry! Fold-over, flexi-duck, PL-259. 2 dBi gain on 440 MHz, full-size 1/4 wave 2M. Hi-Q, low loss construction. 16 1/2", safety tip. 25 Watts PEP.

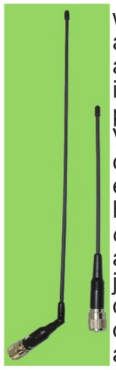
MFJ-1717P. Like MFJ-1717PL, but no fold-over. Has straight PL-259.

MFJ Long-John HT Antenna

MFJ-1818. "Long-John" HT antenna gives a whopping gain on 2-Meters! Get 2.15 dBi gain in a 1/2 Wave, super efficient antenna. 9" collapsed and 38 1/2" fully extended. *FlexSpring*™ base prevents your connector from breaking. Tough, durable and well-protected for years of dependable service. 50 Ohms, BNC connector. Handles maximum 10 Watts.

MFJ 2-Meter Pocket Roll-Up Antenna

MFJ-1730. Roll up this 1/2 wave 2M antenna and stick it in your pocket. Vacations, camping, etc. Get home station performance *on-the-go*! 75" long. Hang in a tree, plug into HT and enjoy some great QSOs. Omnidirectional, significant gain over a 1/4 wave. Doesn't need a ground plane so it's convenient for indoors. 200 W.



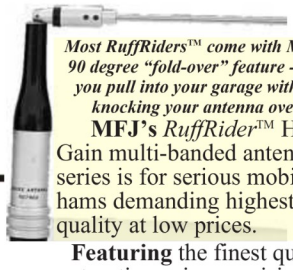
MFJ-1731. 440 MHz pocket roll-up antenna, 1/2 wave. 51" roll-up J-pole for 440 MHz like MFJ-1730.

Handheld Antenna Window Mount

MFJ-310/MFJ-310S/ MFJ-310SF

Gets your antenna *ide* where it radiate eely -- takes way auto shielding effect and gives increased signal strength and reception. BNC/SMA or reverse. 10 ft. RG-58 coax. Order "B" for BNC connector, Order "S" for SMA, Order "SF" for Pofung/Wouxun HTs with reverse SMA.

MFJ *RuffRider*™ High Gain Mobile Antennas



Most RuffRiders™ come with MFJ's 90 degree "fold-over" feature -- lets you pull into your garage without knocking your antenna over!

MFJ's *RuffRider*™ High Gain multi-banded antenna series is for serious mobile hams demanding highest quality at low prices.

Featuring the finest quality construction using precision machined components. They battle the elements, handle rugged rides and the day-to-day highway abuse.

Each has a PL-259 base mount for quick installation to a heavy duty SO-239 magnet, trunk/hatch, gutter or mirror mount. *Free* NMO adapter is included for use with an NMO mount. MFJ's tri-magnet mount recommended for big antennas.

Choose from several different length and gain antennas . . .

MFJ-1402 **A. *VHF/UHF RuffRiderJunior™.*** Premium, short 16½" antenna fits in any garage on any auto. ¼ Wave on 2 Meters, ½ Wave, 3 dB gain on 440 MHz. 100 Watts. No fold-over feature for MFJ-1402/B.

MFJ-1402B. Black.

B. *VHF/UHF RuffRider High Power™.* MFJ-1412 Just 40" long handles full *200 Watts*. Great for high power mobile amp. ½ Wave, 3 dB gain on 2 Meters, ⅝ Wave, 5.5 dB gain on 440 MHz.

MFJ-1412B. Black.

C. *VHF/UHF RuffRider High Gain™.* MFJ-1422 41½" long antenna gives extra gain with little height increase. 150 Watts. ½ wave, 3.2 dB gain on 2 M, ⅝ W, 5.7 dB, 440 MHz.

MFJ-1422B. Black

D. *VHF/UHF RuffRider Hyper Gain™.* MFJ-1432 This 62½" brute gives a whopping 5 dB gain on ⅞ Wave 2-Meters, ⅝ Wave and a *MONSTER* 7.6 dB gain on 440 MHz. Our highest gain dual band antenna will work rock yours and anyone else listening. Handles 150 Watts. Tri-mag recommended

MFJ-1432B. Black.

Tri-Band VHF/220/UHF

E. *RuffRider Triple ThreatII™.* MFJ-1434 Slim 38", similar to MFJ-1436, but 2.15 dB on 2-Meters, 3.5 dB on 220 MHz, and 6 dB gain on 440 MHz. 100 W.

MFJ-1434B. Black.

Tri-Band VHF/UHF/6M

F. *RuffRider Triple Threat™.* MFJ-1436 59" of stacked elements with high-Q phasing coils give a whopping 7.2 dB gain /440 MHz, 4.5 dB /2M, 2.15 dB/6M. 150 Watts.

MFJ-1436B. Black.

VHF/UHF/6M/10M

G. *RuffRider QuadBander™.* MFJ-1438 52", 7.2 dB - 440 MHz, 4.5 dB - 144, 2.15 dB on 6. *Go HF!* 150 W.

MFJ-1438B. Black.

H. *HF/2M/440 RuffRider™* MFJ-1456 **Covers** All of your favorites: 40/20/15/10/6/2 Meters & 440 MHz! Use up to 4 coils at one time. Tri-magnet mount highly recommended.

MFJ VHF/UHF MAGNET MOUNT MOBILE ANTENNAS

MFJ-1724B **It's** the world's best selling dual band 2 Meter/440 MHz magnet mount mobile antenna! Perfect for your dual band mobile or HT. Free BNC adapter. Powerful 3½ inch magnet holds your antenna firmly even at highway speeds. Scratch resistant rubber guard protects your car. Black stainless steel whip looks like an attractive cellular antenna. 19 inches tall, you can park in your garage without knocking it over. Low SWR across both bands keeps your rig safe from overheating. Get excellent gain on 440 MHz band and 2 Meters. 300 Watts PEP. 12 feet coax, PL-259.

MFJ 5/8 Wave 2/6 Meter Magnet Mount Mobile

MFJ-1728B Ant, coax, mount MFJ-1728S/M/T Antenna only **MFJ's** 5/8 wave on 2M gives maximum possible theoretical gain of any single element antenna, no matter how much others cost. On 6M, it's a high performance full 1/4 wave. Gives great *"magic band"* signals used mobile or base. Perfect for mobile or HT. *Free* **BNC** adapter. 300 Watts PEP. Low SWR lets your rig deliver full power safely. Heavy duty magnet mount holds your antenna tight at highway speeds. 12 ft. coax. Stainless steel radiator will endure years of harsh mobile use. Handy Allen wrench included. **Order** MFJ-1728B for antenna and mount/coax. Order **MFJ-1728S**, **SO-239**, **MFJ-1728M**, **NMO**, and **MFJ-1728T** for **3/8-24** HF style threaded connector.

MFJ UltraLite™ Mag Mount Antennas

MFJ-1721 Two Meters
MFJ-1722/S Dual Bander

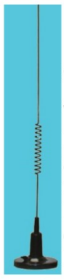
MFJ-1721 is an *UltraLite*™ Mobile magnet mount antenna. 12 ft. RG-174U coax.1/4 wave 2-M. Less than 2 oz. 1/8" rare earth magnet. Thin 20" flexible whip. BNC.

MFJ-1722 like MFJ-1721, but dual Band. 5/8 Wave on 440 MHz. 1/4 Wave on 2 Meters. BNC.

MFJ-1722S, Like MFJ-1722 but has SMA.

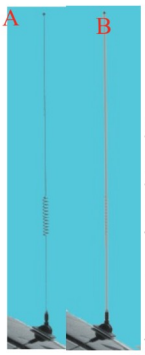
2M/440 MHz Whip Antenna

MFJ-1414 is a tall 58½". 3/8-24 Stud-Mount Dual Band Whip antenna with 2.15 dB gain, 2M (1/2W) and 3.5 dB, 440 MHz. 200W. Sleek, stainless steel, no plastic parts. Great for dual band dipole.



MFJ-1729 **MFJ's** *Power*Gain*™ is ham radio's most powerful dual band magnet mount mobile antenna! Outstanding gain on 440 MHz and 2 Meters. Low SWR lets your rig deliver full power safely. Whopping 2.6 dB on 2-Meters and 6.3 dB gain on 440 MHz. Perfect for dual band mobiles or HTs. Free BNC adapter. 300W PEP. 27½ inch stainless steel *Radiator* minimizes wind vibration for less SWR. Longer range, better readability. Includes 12' coax with PL 259, heavy duty magnet. **MFJ-1723.** Like MFJ-1729, covers 220 MHz, 2.6dB gain. 22.5 inch radiator.

MFJ Glass Mount Dual Band 144/440 Mobiles



A MFJ-1734 Dual Bander
B MFJ-1738 2-Meters

Glass mount dual band 144/440 MHz mobile. A 6-inch counterpoise mounted inside lowers SWR and makes tuning easy. Excellent gain on 440 MHz and 2 Meters. Low SWR lets your transceiver deliver full power safely. Exclusive 26" stainless steel radiator minimizes wind vibration for less SWR flutter. Gives much longer range, better readability. Handles 50W. 12' coax with PL-259, and all mounting hardware.

MFJ-1738. Similar to MFJ-1734 but 2 Meter only mobile glass mount antenna.

MFJ-94. Remount Kit for Glass Mounts. Avoid factory tint placement.

MFJ Mobile Antenna Ground Plane Kit

MFJ-1414 converts most mobile antennas into a ground plane base station antenna. Handles 200 Watts. Accepts VHF/UHF antennas with PL-259 connector. Underneath bracket, an SO-239 connector hooks up your coax. Includes stainless steel mounting hardware, mounting plate, two hefty U-bolts, allen wrench, and four 20.5 inch radials. Easy installation: Goes together in minutes. 6¼" tall bracket fits on any 1.5-inch pipe with clamps or mounting holes. Perfect for your RuffRider™.

MFJ 5" Mag w/Coax

MFJ-335BS SO-239

MFJ-335BT 3/8 - 24 For HF sticks

MFJ-335BM NMO

5" *super strong* magnet mounts with 17' coax terminated with PL-259. Choose SO-239 (BS) or NMO (BM) for your VHF/UHF antennas or 3/8-24 (BT) for your HF antennas. All MFJ magnet mounts are jet-black in color.

Triple Magnet Mount

MFJ-336S SO-239

MFJ-336M NMO

MFJ-336T 3/8x24

3 super-strong 5" Magnets bolted to a 1/4 inch triangular mount. 17' coax with PL-259. **Caution:** Heavy duty!

3-Inch Magnet Mount

MFJ-333BS SO-239

MFJ-333BM NMO

3" black magnets with 17' coax with PL-259. SO-239 (**BS**) or NMO (**BM**).

A. MFJ-7720. Screw-on SO-239 chrome plate.

B. MFJ-7756, $5.95. Screw-on NMO, PVC, black.

C. MFJ-7758. 5-pack,push-on SO-239/N, vinyl, black.

D. MFJ-7750. Push-on N/SO-239, black PVC, retaining strap.

MFJ Trunk/Hatchback Lip Mounts

RuffRider™ Mounts feature *extra-wide* 4" lip and large reinforcing tabs on each side to safely distribute load over your vehicle's lip. Rotates 360° to allow you to put your antenna in every possible configuration. 2 large set screws on each end locks your mount into place. Rubber guard protect. Secure large VHF/UHF and medium HF antennas. 10' of low loss coax with PL-259. Two size Allen wrenches included.

MFJ-345S SO-239

MFJ-345M NMO

MFJ-345T 3/8-24

***Deluxe* Trunk/Hatch-back Lip Mounts**

MFJ-348 are like MFJ-345 but are heavy-duty -- each has a wide 3.3 inch lip and reinforcing tabs on each side to safely distribute large HF/VHF and UHF antenna loads.

MFJ-348S. SO-239 connector.

MFJ-348T. HF style 3/8-24 threaded connector.

MFJ-348M. NMO connector.

Mirror/Rack/Pipe Mounts

MFJ-342T 3/8-24 threaded HF antenna pipe/mirror mount holds MFJ's HF hamsticks steady on your auto's mirror, luggage rack or other. Hard aluminum clamps can mount up to a 1" pipe. SO-239 with lock washer.

MFJ-342S, like 342T, but has SO-239, includes 17' coax with PL-259. Mount to 1" pipe.

MFJ-344, like 342T, but vertical for 3/8-24 HF antennas. Mount up to a 1" pipe.

License Plate Mount

MFJ-2820 mounts behind your license plate. Sturdy mount for HF/VHF/UHF antennas. Holes for 3/8-24 HF or SO-239/NMO VHF/UHF antennas. Braced *stainless steel* construction. Antenna is offset so it does not block license plate. Ground wire holes. Check local laws.

Trailer Hitch Mount

MFJ-2822 slides into trailer hitch slot and a bolt locks it in place. Holds large HF/VHF/UHF antennas. Heavy-duty aluminum construction. SO-239 for VHF/UHF and a 3/8-24 thread for HF antennas. No height restrictions. Mounts at the lowest point on your vehicle. 2Wx2Hx10¼D inches.

Deluxe Mirror/Pipe Mount

Deluxe *Ruff-Rider*™ Mirror/Pipe Mounts attach mirror, luggage rack or spare tire carrier (up to 5/8" dia.). Secure large VHF/UHF/HF antennas with PL-259. 2-axis of rotation position antenna to desired angle. 10' coax with PL-259. Allen wrenches included.

MFJ-340S. SO-239. MFJ-340M. NMO.

Truck Bed Mount

MFJ-349 is a 5Wx5Dx 1H" by .120 thick aluminum bracket to mount antennas in a triangle of your truck bed. 3/8-24, SO-239 and NMO connectors. Use with MFJ-341S (SO-239), MFJ-341M (NMO) or MFJ-343 to complete.

Balcony Antenna Mount

MFJ-1907 securely mounts an antenna to a balcony. Use hamsticks, lightweight verticals, screwdrivers and light dipoles. High-strength .1" aircraft aluminum. Extends 14" away from gutters or metal roofs. Vertical or horizontal. 3/8-24 or SO-239. 1½" U-bolts.

Vice Grip 3/8-24 Mount

MFJ-351T. 3/8-24 antenna connection for quick, anywhere placement. Grips up to 1.25 inch masts, tree limbs, etc. 3/8-24 for antenna side, SO-239 connector for coaxial feed.

GumDrop™ 3/8-24 Mount

MFJ-343 3/8-24 hard mount for HF antennas. Durable plastic, rubber seal protects vehicle. Drill small hole for SO-239 bottom.

Mini Trunk Lip Mounts

Mini lip stainless mounts,17' coax/PL-259. Rubber lip protect. **MFJ-346M** (NMO). **MFJ-346T** (3/8-24).

MFJ Hard Mount Coax

MFJ-341S. SO-239 ant., PL-259 rig. 17' coax. **MFJ-341SS.** SO-239 ant., SMA radio. 3' coax. MFJ-341M. NMO ant., PL-259 rig. 17' coax.

3/8-24 HF Antenna Adaptors

	Model #	Description
A	MFJ-7710	3/8-24 to PL-259 Adaptor
B	MFJ-7725	3.8-24 Quick Connector for hamsticks
C	MFJ-7735	3/8-24 Fold over adaptor for hamsticks, others
D	MFJ-7707	3/8-24 to NMO Adaptor
E	MFJ-7748	SO-239 to 3/8-24 Female Adaptor
F	MFJ-7714	3/8-24 Chassis mount with insulating washer
G	MFJ-7715	3/8-24 male, .20" hole whip ferrule, hamsticks.
H	MFJ-7712	3/8-24 male, .10" hole whip ferrule, hamsticks.
I	MFJ-7764	3/8-24 HD barrel SS spring, 4" Length, for 60" antennas
J	MFJ-7763	3/8-24 SS spring, 3" Length, for 60" antennas
K	MFJ-7762	3/8-24 SS spring, 2" Length, for 24" antennas

MFJ Duplexers and Triplexers, HF to 1.2 GHz

MFJ-916B HF/VHF/UHF Duplexer handles 200W

MFJ-916B

MFJ-916BC

Use HF or 2 Meter/440 MHz antennas with separate HF or 2 Meter/440 MHz rigs without a built-in duplexer.

Use 2 dual band antennas with a dual band rig with only one RF output. Heavy-duty diecast enclosure houses low pass networks that separate/combine 144/440 MHz signals. Low loss SO-239s. 50 Ohm ports, 200W PEP.

MFJ-916BN. Like MFJ-916B but has type N connectors for low loss.

Duplexer with coax pigtails

MFJ-916BC. Like MFJ-916B, has 3 ft. coax w/PL-259s, duplex sects.

Mast Mount Duplexer

MFJ-916BM. Like MFJ-916B but for outdoors. Save coax, reduce losses. Tower leg or mast mount near your antennas. Heavy-duty weather protected PVC, mounting bracket. U-bolt fits up to 1½" diameter mast or pipe. Measures 3½Wx3½Hx5D inches.

MFJ-916BMN, N connectors.

MFJ HF/6M/VHF/UHF 200/600W Duplexers

MFJ-4916S

MFJ-4906S

MFJ-4956S

Use an HF, 2 Meter, 6 Meter or 440 MHz antenna with a separate HF, 2 Meter, 6 Meter or 440 MHz transceiver without a built-in duplexer.

Or use two dual-band antennas with a single dual-band transceiver with only one RF output.

Heavy duty diecast enclosure houses low pass networks that separate or combine HF/6M/144/440 MHz signals. Ports are 50 Ohms, 600 Watts PEP.

MFJ-4956S. SO-239 connectors, handle 500 watts HF/6M, 300 Watts on 144/440 MHz.

MFJ-4916S/4906S.
These units have SO-239 connectors and handle *600 Watts PEP*.

Model #	MFJ-916B	MFJ-916BN	MFJ-916BC	MFJ-4916S	MFJ-4906S	MFJ-4956S
Price						
Freq (MHz)	1.6-225 350-540	1.6-225 350-540	1.3-225 350-540	1.6-60 140-470	1.6-30 50-54	1.3-60 140-540
Output	SO-239	N-Female	Pigtail/259	SO-239	SO-239	SO-239
Output	SO-239	N-Female	Pigtail/259	SO-239	SO-239	SO-239
Input	SO-239	N-Female	SO-239	SO-239	SO-239	SO-239
Power Watts	200	200	200	600	600	500/300
Insert Loss	.20 dB	.20 dB	.20 dB	.20 dB	.20 dB	.20 dB
VSWR	< 1.2	< 1.2	< 1.2	< 1.2	<1.2	<1.2
Isolation	> 55 dB	> 55 dB	> 55 dB	> 55 dB	>55 dB	>60 dB
Impedance	50 Ohms	50 Ohms	50 Ohms	50 Ohms	50 Ohms	50 Ohms

HF/VHF/UHF/1.2 GHz 200/500/800 Watt Triplexers

MFJ-4926S

MFJ-4926C

Use HF, 6M, 2M, 440 MHz and 1.2 GHz antennas with rigs without a built-in triplexer. Or use 3 different radios with one HF/VHF/UHF/1.2 GHZ antenna. Heavy-duty diecast, low pass networks separate/combine HF/6M, 144/440 MHz and 1.2 GHz signals. Ports are 50 Ohms, 200/500/800 Watts.

MFJ-4926S. *SO-239s*, 800 Watts.

MFJ-4926N. N-type.

MFJ-4926C. 12" *coax PL-259s*.

MFJ-4936S. *SO-239s*, *500 Watts*.

Model #	MFJ-4926S	MFJ-4926C	MFJ-4936S
Price			
Frequency MHz	1.6-60 110-170 350-570	1.6-60 110-170 350-570	1.6-150 220-225 400-550
Output	SO-239	Pigtail PL259	SO-239
Output	SO-239	Pigtail PL259	SO-239
Output	SO-239	Pigtail PL259	SO-239
Input	N-Female	SO-239	SO-239
Power Watts	800/500/500	800/500/500	500/500/500
Insertion Loss	.20/.20/.20	.20/.20/.20	.23/.23/.30
VSWR	< 1.2	< 1.2	< 1.2
Isolation	> 55 dB	> 55 dB	> 55 dB
Impedance	50 Ohms	50 Ohms	50 Ohms

Compact HF Mobile SWR/Wattmeters

Flat Mount 1.8-60 MHz Mobile SWR/Wattmeter

MFJ-819

Just 1⅝" thick -- easily mounts on dashboard for easy viewing. Flat mount on wall or shelf in ham shack for best viewing angle. Remote sensor with 25' thin, flexible cable lets you place sensor and coax out-of-the-way. Full 1500 Watts, 1.8-60 MHz. LED lighted Cross-Needle meter. *Active* electronics lets you read *true* peak or average power in two power ranges. "High SWR" LED. Flat-mount SWR/Wattmeter is 5Wx3¾Hx1⅝D"; remote sensor is a tiny 3½Wx2¾H x2¾D". Use 9V battery or 12 VDC.

Ruggedized flat Mobile/ portable SWR/Wattmeter

MFJ-818

MFJ's flat, compact SWR/Wattmeter is *plenty rugged* to take the abuse of *brutal* mobile or portable operation. Easily mounts on dash for easy viewing. Flat mount on wall/shelf in shack for best view angle. Fully enclosed in all metal case with just the scales exposed. Only two small switches slightly protrude so there's little to break. *Simultaneously* read SWR/forward/reflected power on this 3" lighted *Cross-Needle* Meter. 30/300 Watt ranges, 1.8-30 MHz, SO-239. 12 VDC for meter lamp or plug into cigarette plug with **MFJ-5510C**. Rubber feet, 5Wx3Hx2D inches.

Compact Cross-Needle SWR/Wattmeters

MFJ-822
1.8-200
MHz
or
MFJ-842
140-525
MHz

Compact HF/VHF and VHF/UHF SWR/ Wattmeter.

Has huge 3" Cross-needle meter. Read forward/reflected power and SWR simultaneously.

Perfect for mobile or portable operation.

Two selectable power ranges, built-in meter light (+12 VDC). SO-239 connectors.

Measures a super compact 3¼Wx3¼Hx3¼D inches.

MFJ-822 covers 1.8-200 MHz, 30 or 300 Watt ranges.

MFJ-842 covers 140-525 MHz, 15 or 150 Watt ranges.

Ultra-Strong Stainless Steel Telescopics

5 models . . . 17/12/10/8/4.5 foot Extended

MFJ's premium stainless steel telescopic whips are the perfect choice for building collapsible multi-band dipoles, mobiles, portable and base antennas. Great for traveling, mini DXpeditions, vacations...

They can also be used to replace your current automatic screwdriver whip for a more highly efficient fixed mobile operation.

Rigidly collared at the base, stronger than plated brass, impervious to rust, corrosion, they stand up to the forces of nature and the rigors of portable where others fail.

The base of each whip features a standard 3/8-24 threaded mounting stud for installation on mobile or fixed antenna mounts like MFJ's lip mounts, magnet mounts, tripods and dipole mounts. Tough, rigid base makes the difference for an extra-durable and long-lasting antenna system.

A. MFJ-1979

17-foot, 7/8" diameter by 2 3/8" long chrome-plated brass base. 5/8" diameter bottom section and a .10" top section with a 5/16" diameter round ball tip. 10 sections. Collapses to 27". Telescopes for full 1/4 Wave operation on 20 Meters without loading coil and 30/40/60/80/160 Meters with loading coil.

P/N: 404-0009. 230 uH loading coil,10 turns/inch.

B. MFJ-1977

12-foot, 3/4 inch diameter by 2 3/8 inches, 5/8 inch bottom section, .10 inch top section with 5/16 inch diameter round ball tip. Seven sections. Collapse to 26".

C. MFJ-1976

10-foot, 3/4" diameter by 2 3/8 inches, 7/16 inch bottom, .10 inch top section with 5/16 inch diameter round ball tip. Seven sections. Collapses to 20".

D. MFJ-1974

8-foot, 3/4 inch diameter by 2 3/8 inches, 7/16 inch bottom section, .10" top section with 5/16 inch diameter round ball tip. 5 sections. Collapses to 24".

E. MFJ-1972

4.5-foot, 1/2 inch hex base with 3/8-24 threaded stud. 9/32" bottom, 3 sections. 22" collapsed.

F. MFJ-1964

72" solid stainless steel whip with corona discharge cap. 3/8x24 base.

MFJ-1963

6' SuperStik™ Stainless steel telescopic whip. 1.2 oz. 6' extended, 14" collapsed. 6 sections, 9/32" bottom, 7/64" top. 10-32 stub mount.

MFJ-7749.

10-32 to 3/8-24 stub adaptor for MFJ SuperStik™.

MFJ Manually tuned Screwdriver Antennas

MFJ's *Manually Tuned Screwdriver Antennas* let you operate *all bands* 80-6 Meters *continuously* including all WARC bands and new 60 Meter bands (depends on model).

Extra long 10' (19" collapsed) whip lets you get out and work rare DX! 4½' (23" collapsed) stainless steel whip for mobile. Each has highly efficient loading inductor.

For highest Q, the coil is wound with heavy gauge wire with wide spaced turns on a mostly-air core.

A tuning sleeve electrically removes turns to eliminate detrimental self-resonance effects. The tuning sleeve is on the low impedance side of the coil to minimize power robbing and detuning stray or hand capacitance.

Frequency stays put after you tune it. Movable sleeve adjusts frequency. Nylon-tipped thumb-screw locks sleeve. Wing nut to connect a matching capacitor or inductor for 1:1 SWR. 3/8x24 mount. Each handles 200 Watts. Add coax, ground/counterpoise.

MFJ-1661 covers 40-2 Meters with 10 foot whip. Covers 6-20 Meters with 4 ½ foot whip. 12 foot long by 2" diameter. One pound.

MFJ-1662 covers 40-2 Meters with 4½ foot *mobile* or 10 foot *fixed operation* telescoping whip. Continuously adjustable loading coil is 15 long by 2" diameter, 1.3 lbs.

MFJ-1664 covers 80-6 Meters with 10 foot whip. Covers 6-40 Meters with the 4½ ft. whip. 24 long by 2" diameter. Just 1.8 pounds.

MFJ-1668 covers 80-6 Meters with 4½ foot *mobile* or 10 foot *fixed operation* telescoping whip. Continuously adjustable loading coil is 36 long by 2" diameter, 2.6 lbs.

MFJ-22.
Shunt matching coil with solder lugs.
For use at base of mobile and screwdriver antennas with high SWR.

MFJ Automatic Screwdriver Antenna Controllers

MFJ Truly Automatic Screwdriver Controller

MFJ-1928

Works 160-6M! No cables needed! RF sensor reads frequency data and moves antenna to nearest setting. SaveS 8 settings per band. Tune command tunes antenna automatically to lowest VSWR. LCD shows frequency, VSWR, count and motor current. Use up/down buttons for fine tuning. 2-speed motor control: high speed for quickness, low speed for fine tuning. Home mode lowers antenna in low overhead. Adjust current limit to prevents motor damage. Meter port for AWM-35B/H. 3½Wx3¼Hx1¼D". 4-pin molex matches most screwdrivers.

Programmable Screwdriver Controller

MFJ-1924

Save *10* positions in memory and quickly return to saved positions. Up/Down manually moves antenna to desired position. 4-digit counter, *AutoPark*™ automatically bottoms antenna for parking. *Resets and calibrates* each time -- stops antenna slippage, count errors. *Dead-OnSTOP*™ auto reverses motor briefly before it stops--eliminates overshoot. *Stall-Protector*™ detects motor stall, shuts off power. Single/dual mag sensors. 12 VDC. 3½Wx3¼Hx1¼D".

MFJ-82. Magnetic Sensor for High Sierra screwdriver antennas.

MFJ-83. Hi-Q magnet sensor.

Automatic Screwdriver Antenna Controller

MFJ-1927 K,I,Y

For Kenwood, Icom or Yaesu rigs with CI-V interface. Plug controller to rig and receive frequency data. Automati-cally tunes your antenna. Includes radio interface.

MFJ Digital Up/Down Controller

MFJ-1922B. *Bright* .40" high-intensity 4-digit LED, counts -999 to +999.On/off/re-set. Easy calibrate. 3½Wx3¼Hx1¼D"

Rig Interface Cables Available

RJ-DB9KY. Kenwood, Yaesu rigs with DB9 serial port, com port.

RJ-8MY2. For Yaesu 8-pin mini Din rigs with a Cat/Linear port.

RJCB-35. Icom, 3.5 mm remote.

MFJ-1925/I2

Use *any* rig with Yaesu ATAS Screwdriver Antenna

MFJ lets you use the popular Yaesu ATAS series screwdriver antennas with popular Icom, Kenwood, Alinco, and other transceivers. **MFJ-1925 I2** plugs directly into the popular Icom IC-706 transceiver. An Up/Down switch puts the Icom 706 in low power and tunes the antenna. MFJ-1925/I2 is simple to install. No mods to radio or antenna needed. SO-239 connectors. **MFJ-1925 I2** for Icom 706. **MFJ-1925** for Kenwood, Alinco and compatibles.

MFJ HamStick HF Mobiles!

Each is ruggedly constructed. A heavy duty 4 3/8 inch diameter fiberglass rod; a nearly indestructible .125 inch diameter PH-17-7 stainless steel whip and chrome plated brass fittings will give years of tough service.

It's sleek, low profile construction has low wind loading and its semi-rigid fiberglass eliminates the need for springs or guys while mobile.

Black anti-static jacket protects the loading coil and blends with any vehicle. Stainless steel whip is adjustable for lowest SWR. Pull it down to park in the garage or fully extend it for maximum efficiency during mobile operation.

Includes allen wrench and complete tuning and matching instructions. MFJ-16XXT *Hamtenna™ Whips* handle 250 Watts PEP. Stainless whips are about 7 feet fully extended, and collapse to *about* 4 feet for easy storage. 600W hamsticks are longer and more rigid.

Simply screws into any 3/8 x 24 female mount for quick band-changing. Check out MFJ magnet mounts, lip mounts.

250 Watt Hamsticks

Your Choice. Ship Code B

MFJ-1675T - 75 Meters
MFJ-1660T - 60 Meters
MFJ-1640T - 40 Meters
MFJ-1630T - 30 Meters
MFJ-1620T- 20 Meters
MFJ-1617T - 17 Meters
MFJ-1615T- 15 Meters
MFJ-1612T - 12 Meters
MFJ-1610T - 10 Meters
MFJ-1606T - 6 Meters

600 Watt Hamsticks

These 600W hamsticks are super rugged. The longest has a 53" base and the whip with ferrule is 40 inches giving you almost 8 feet of a *real* mobile antenna.

Your Choice. Ship Code C

MFJ-2610T - 10 Meters
MFJ-2615T - 15 Meters
MFJ-2617T - 17 Meters
MFJ-2620T - 20 Meters
MFJ-2640T - 40 Meters
MFJ-2675T - 75 Meters

Shorty Hamsticks

Your Choice. Ship Code B

MFJ-2375T - 75 Meters, 85"
MFJ-2360T - 60 Meters, 50"
MFJ-2340T - 40 Meters, 50"
MFJ-2330T - 30 Meters, 37"
MFJ-2320T - 20 Meters, 39"
MFJ-2317T - 17 Meters, 39"
MFJ-2315T - 15 Meters, 37"
MFJ-2312T- 12 Meters, 39"
MFJ-2310T - 10 Meters, 37"
MFJ-2306T - 6 Meters, 39"

MFJ 10-band HF/VHF Mobile Antenna

MFJ-1699S/T **Operate** 80, 40, 30, 20, 17, 15, 12, 10 Meters HF mobile and 6 and 2 Meters VHF with just one amazing antenna!

MFJ-1699 features low SWR and 200 Watts power handling for a super-performing mobile HF/VHF antenna.

Changing bands is super-easy -- just change the tap on the *"wander-lead"* to the next band you want to explore. Maximum height is 49.5".

PL-259 or 3/8-24 connector makes it easy to mount on any type of lip, trunk, magnet or pipe type mount. *See* MFJ mounts in this catalog. Easily collapsible for storage.

Order **MFJ-1699S** with **PL-259**.

Order **MFJ-1699T** with **3/8-24** stub.

20/40M 4 1/2' baseload Telescopic Mobiles

Efficient, *base-loaded* 4 1/2 foot HF Whip Antennas are *thin, sleek, and low profile* with very low wind resistance, and super lightweight.

MFJ-2420T (20 Meters)

MFJ-2440T (40 Meters)

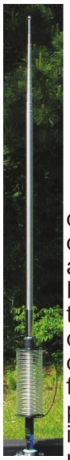
A 3/8x24 trunk lip or 5-inch magnet mount holds it tight and secure. Handles 125 Watts. *Enjoy your road trip on HF!* Whip collapses to 22 inches for easy parking or trunk storage. Easy-on, easy-off 3/8x24 stud. Use as a center loaded antenna with a bottom mast to improve efficiency.

MFJ HF mini Bugcatcher

Become an *"HF Mobileer"* instantly with no effort! Rag-chew and DX on the HF bands with your buddies and around the world. Turn boring drives into fun-filled action-packed ham adventures. It only takes minutes to attach this antenna to a mobile mount. Bugcatcher design uses large highly-efficient air-wound inductor, exclusive *built-in* inductive matching network keeps SWR low. 5 1/2 foot whip collapses to 2 1/2 feet. Change bands by moving "wander lead". 3/8 by 24 inch threaded mount.

MFJ-1624

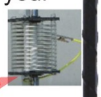
MFJ HF Hi-efficiency Mobile Antennas



MFJ-1652 *20-2 Meters*

MFJ-1654 *40-2 Meters*

Excellent (40-2M) Hi-Q Mobile or base stealth Antenna consists of an 8 foot stainless steel radiator and a Hi-Q air-wound loading coil. Handles 1 kW PEP SSB. Simply tap a different coil position to change the band you want to hear quickly. Whip telescopes from 2-8 feet. Easily pack it away when parked to prevent theft or vandalism. Bring it out at night and your neighbors will never know you were on the radio. Easy-to-install, standard 3/8-24 mount.



MFJ-65. Hi-Q air-wound loading coil for 20-2M.

MFJ-67. Hi-Q air-wound loading coil, 40-2M. 2" diameter by 6" length. Same coil used on our popular BigEAR & BigStick portable antennas.

MFJ 4 1/2 Foot Extender Mast

MFJ-1600T. This 4 1/2 foot long, 3/8 inch diameter fiberglass/copper conductor with 3/8x24 male and female mounts on ends gets your hamstick way up in the air. Black anti-static jacket. Convert base loaded antennas to highly efficient center loaded antennas. Use MFJ ham sticks, Bug Catcher, MFJ-2620/2640T, MFJ manual screwdriver antenna, *Hustler* or any loading coil with 3/8x24 threads. Extend ham sticks for highly efficient fixed station antennas. Get the extra height you need at home to put your call on the map! Replacement for broken or bent Hustler bottom mast section. Add telescoping whip for multi-band vertical.

MFJ Antenna Window Feedthrough Panels

Weather-proof window feedthrough panels bring HF/VHF/UHF antennas, balanced lines, random wire antennas, ground, DC/AC power and Rotator/Antenna Switch Cables into your hamshack without drilling through walls!

MFJ-4603

MFJ-4602

MFJ-4601 MFJ-4601N

MFJ-4600

MFJ-4604

MFJ-4605

MFJ Weather-Proof *Antenna Feedthrough Panels* mounts in your window sill. Lets you bring all your antenna connections into your hamshack *without* drilling holes through walls.

Simply place in window sill and close window. One cut customizes it for any window up to 48 inches. Use horizontally or vertically. *Real* Western Red Cedar wood is naturally resistant to rot, decay and insects -- lasts longer, maintenance-free. Pitch and resin free for a wide range of beautiful finishes or leave it in its naturally beautiful raw finish. Edges sealed by weather-stripping. Seals and insulates against all weather conditions. All are $^{3}/_{4}$Dx3$^{1}/_{2}$ Hx48W", except for MFJ-4605, which is $^{3}/_{4}$Dx7Hx48W".

Inside/outside stainless steel plates bond all coax shields together to ground connection. Stainless steel ground post brings outside ground connection inside.

Seven models to choose from:

MFJ-4603. ***Universal Window Feedthru Panel.***
Four 50 Ohm *Teflon*(R) SO-239 coax connectors lets you feed HF/VHF/UHF antennas at full legal power limit.
A 50 Ohm *Teflon*(R) coax *N-connector* lets you use any antenna up to 11 GHz, including 450 MHz, UHF, satellite, moon bounce and 2.4/5.8 GHz Wi-Fi antennas.
A 75 Ohm, 1 GHz *F-connector* makes it easy to bring in television, Satellite, HD, cable TV and FM radio signals.
Pair of high-voltage *ceramic feedthru insulators* lets you bring in 450/300 Ohm balanced lines directly to your tuner.
Has random/longwire antenna *ceramic feedthru insulator*.
***5-way** binding posts* supply 50 Volts/15 Amps DC/AC power to your outside antenna tuners/relays/switches.
Stainless ground post bonds inside/outside stainless steel panels together and drains away static charges.
Exclusive *Adaptive Cable Feedthru*™ brings in rotator/antenna cables, etc. without removing connectors (up to $1^{1}/_{4}$X$1^{5}/_{8}$ in). Adapts for *any* cable size. Seals out rain, snow, adverse weather.

MFJ-4602. ***Our most popular model.*** 3 SO-239 *Teflon*(R) coax connectors feed HF/VHF/UHF antennas. High voltage *ceramic* feed-throughs bring 450/300 Ohm balanced lines into your hamshack. Has *Ceramic* feed-thru insulators for long random wire, Stainless steel ground post.

MFJ-4601. ***For coax fed antennas.*** 6 high quality *Teflon*(R) SO-239 connectors for HF/VHF/UHF coax fed antennas and a stainless steel ground post. 1.5 kW.

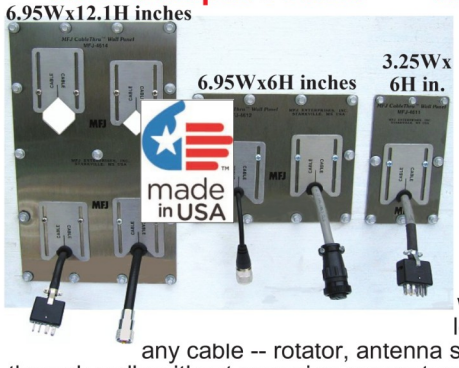
MFJ-4601N. Like MFJ-4601, with N connectors.

MFJ-4600. ***Balanced Line/Coax Feedthru Panel.*** 4 sets of ceramic feedthrus, two SO-239 connectors.

MFJ-4604. ***MFJ Weather-Sealed CableThru™ Window Panel.*** 5 *Adaptive Cable Feedthrus*™, 2 for connectors up to $1^{1}/_{4}$x$1^{5}/_{8}$" and 3 for UHF/N size connectors. Adapts to virtually *all* cables used in ham radio. Seals out weather.

MFJ-4605. ***All-Purpose FeedThru/CableThru™ Window Panel.*** *Combines MFJ-4603 and MFJ-4604!* Gives every connection you'll ever need without drilling holes!

MFJ AdaptiveCable ™ Wall Plates



MFJ-4614 *(Four Holes)*

MFJ-4612 *(Two Holes)*

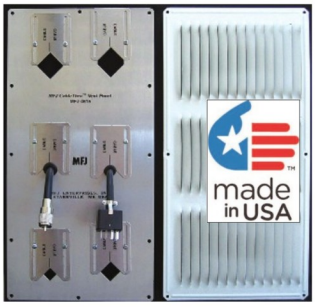
MFJ-4611 *(Single Hole)*

MFJ's exclusive weather-sealed let you bring nearly any cable -- rotator, antenna switch, coax, etc. -- through walls without removing connectors. Pass cable connectors up to $1^{1}/_{4}$x$1^{5}/_{8}$ inches. Sliding plate adjusts hole size to weather-seal virtually any size cable.

Rubber grommet seals out rain, snow, other adverse weather. Complete kit includes 18 gauge *stainless steel* plates for each side of wall, sliding plates, rubber grommets, weather stripping and mounting screws.

Models for one, two and four cables.

Bring cables thru eave of your house



MFJ-4616 shown with vent (not included) it replaces. *Six Holes*

MFJ-4613 shown with vent (not included) it replaces. *Three Holes*

Replace your standard house eave/sofitt air vents with these *MFJ AdaptiveCable™ Air Vent Plates*. Bring in coax, rotator, antenna switch, power cables, etc. of nearly any size up to 1 1/4x1 5/8 inches. Sliding plates and rubber grommets adjust for virtually any cable size to seal out adverse weather, insects and varmints. Use existing vent hole, mounting screws and screw holes.

MFJ-4616. Full-size. For six cables.
MFJ-4613. Half-size. For three cables.

MFJ Millenium ™ CW Memory Keyer

MFJ-495

MFJ-495 combines latest millenium microprocessor technology with non-volatile EEPROM memory for a full-featured, low cost, high reliability design. Send CW or load messages with paddle, keyboard or serial port.

Easy-to-use menus and LCD let you set all keyer functions with easy push buttons. Keyer functions also are changed from paddle, keyboard or computer. LCD shows messages as it's sent from memory or live from your paddle, keyboard or computer.

32-message memories of 256 characters each. Repeat messages continuously, insert timed pauses within messages, insert auto-incrementing serial number, messages call other messages, insert embedded commands to change speed, weight, automatically.

Supports direct and grid-block. Port for optional remote control. PTT output, speaker, sinewave sidetone.

Features include:

Iambic keyer with dot/dash memories; auto, semi or hand-key mode.
Keyboard uses any AT keyboard for type ahead buffer. All commands and memories are keyboard controlled.
Message editing capability.
Input queue stored multiple messages.
Auto-incrementing contest serial numbering from 001 to 9999.
Digital/linear analog speed control from 5 to 99 wpm (3:1 to 20:1 speed range)
Farnsworth, speed from 10-99 wpm
Ultra speed messages to 990 wpm
Adjustable weight 25% to 75%
Adjustable sidetone 300-1000 Hz
Keying output delay up to 20 ms
Push-to-talk (PTT) hang time to 5sec
Direct (pos.)/grid-block (neg.) keying
Timed tune for XMTR adjustment
Timed pauses, messages loops
Internal speaker, adjustable volume
Supports Qwerty/Dvorak keyboards
190 characters type-ahead keyboard buffer with low buffer warning
Dual user mode. 6 1/4Wx2 1/2 Hx6 1/4D". 12 VDC or 110 VAC. MFJ-1312D.

RFI-Suppressed Keyboard

MFJ-551. RFI suppressed keyboard.

Remote Control Unit

MFJ-70. Full function wired remote control for MFJ-495.

Menu Memory Keyer/Bencher Paddle

MFJ-490E

MFJ Menu Driven Memory Keyers™ a
easiest to operate. No keypad, no comple
sequence, nothing to remember. Select a
menu by pressing a button. LED lights
indicate activity. Menu is clearly printed o
top panel. Save and play messages,
decrement serials, set speed, weight,
sidetone, Iambic, semi-auto, handkey,
message queue, paddle commands,
sidetone on/off, transmitter tune, and
keying output on/off. Iambic A/B, re-verse
Morse trainer, and store serial numbers.
Bypass function, tells status in CW. Adjust speed,
5-100 wpm. Farnsworth or normal modes. Contest
serial numbering (0-9999) with auto-increment,
sidetone, speaker, volume control, adjust 300-3000 Hz tone.
Adjust weight 5-95%, compensates radio distortion, key direct
or grid-block. MARS characters. 192 character (8K) memories
divided into 4 soft sectors. 9V battery (not included) or 110
VAC with **MFJ-1312D**. Lithium battery backup.

MFJ-490E, Memory Keyer/Iambic paddle combination, 5X3X5½ in. **MFJ-490EX,** is the keyer only.

MFJ Practice Oscillator & key

MFJ-557

MFJ-550
Telegraph key only

***Deluxe** Code Practice Oscillator* is a Morse straight key on a non-skid heavy steel base -- stays put and doesn't move around while sending.

Practice sending code at home, work, in your car, outside on the picnic table -- anywhere. Volume adjusts from barely audible to full sound.

Practice without bothering anyone.

Tone control for wide adjustment, from high "squeaky" to low "booming" tones. Earphone jack is 3.5 mm.

Use external speaker like MFJ's *ClearTone*™ (MFJ-281) for high classroom volume.

Uses 9 volt battery (not included) or 110 VAC with MFJ-1312D. Plugs into jack on the side.

When you're finished cleaning up your sloppy fist, hook up MFJ-550 to your transmitter and go *on-the-air.*

Don't pass up a super buy! Built-in speaker, adjustable contacts. Compact 8 1/2x2 1/4x3 3/4 inches. Black.

MFJ Micro CW Telegraph Keys

MFJ-566M
Black with Metal Base

MFJ-566P
Black plastic

MFJ-566M is red and black on a 3/8 inch thick aluminum non-skid base. It is liquidy smooth, has shielded steel ball bearings and a hardened steel pin rotation with stainless steel screws. Solder connections with solid brass contacts and custom micro-grip feet.

MFJ-566P Like MFJ-566M but on a durable black plastic base.

MFJ Deluxe Wood base Telegraph Key

MFJ-553

Deluxe wood base telegraph is a Morse Code straight key on a non-skid, beautifully stained wood base. A Steel underplating makes it stay put on your table, doesn't move around while sending! Designed by KA5MAN, this key lets you send code at home, work, riding in your car -- practically anywhere. Pre-wired 3 foot cable with 3.5 mm plug. Hook-up the key to your rig and go on-the-air sounding like you were born for CW! A handsome addition to any shack.

MFJ Classroom Code Oscillator

MFJ-554

THE World's finest code practice oscillator is MFJ-554! It is for demanding classroom use. It gives a true pure *sinewave* sidetone with no trace of harsh keyclicks. Hear the clearest, sweetest sounding CW you have ever heard. Delivers 1 Watt into its built-in 3-inch speaker -- fills an entire room with glorious sounding Morse code. Low distortion -- less than .2% total harmonic distortion from its BTL (Bridge-Tied-Load) amplifier. Volume control, 400-1000 Hz tone adjustment, on/off switch, power LED, 1/4 inch key jack, 3.5 mm speaker jack, use 12 VDC. 4 3/4Wx1 1/2Hx5D inches.

Classroom Morse Code Tutor

MFJ-414

This classroom Morse code tutor is for VECs, Elmers, teachers, ham clubs, schools and hams who want the best of the CW world. Has everything in the famous MFJ-418 *Pocket Size Morse Code Tutor*™ plus . . . Hear powerful classroom audio from its built-in speaker/amplifier with true sinewave sidetone and no harsh keyclicks. Down/upload custom practice groups from PC with serial port . . . Store 16 FCC exams for VECs . . . Print correct answers using printer port . . . Record quality code tapes with tape output . . . Send *on-the-air* CW practice with HF/VHF radio.

MFJ 2M/6M/10Meter Antennas

300 Watt 5/8 wave ground plane base antenna for 2 Meters gives you the maximum possible calculated gain of any single element antenna. Other 5/8 waves *can't* work any better -- no matter how much they cost. *Shunt-fed matching network* gives lowest possible SWR over entire 2M band. It also bleeds off unwanted static.

MFJ's *RapidTuneRadiator*™ helps with quick accurate tuning. Ceramic insulator gives low RF loss. Result? Maximum power is achieved.

Easy installation. Use any 1-1 1/2" mast, (not included) with single U-bolt.

Strong lightweight aluminum construction, famous MFJ *No MatterWhat*™ limited warranty.

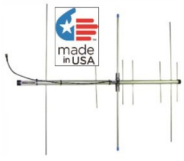
MFJ-1750.
2-Meter 5/8 Wave.

MFJ-1752.
Like MFJ-1750 but covers 220 MHz, 5/8 Wave.

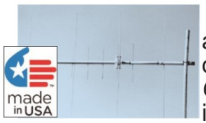
MFJ-1754 is a Dual band 144/440 ground plane antenna. Small, lightweight and super easy to mount to any 1-1 1/2" mast, with a single included U-bolt -- you'll have it up and operating anywhere in just minutes. Great for backpacking. Extra long range on 440 MHz with high gain halfwave over quarter wave antenna and solid 1/4 wave performance on 2M. Ground plane is sloped to give low SWR across both bands and minimizes feedline radiation.

MFJ-1740 is an *improved* 300 Watt 1/4 Wave Ground Plane for 2 Meters that'll bring up repeaters as well as or better than any 1/4 wave ground plane -- even if it costs twice as much. Minimizes feedline radiation for more useful radiated power, reduced TVI and noise pickup by the coax shield. MFJ's *Fast-Tune-Radiator*™ makes tuning to your favorite part of the band a snap. Hardware included. Easy to install on 1 1/2" mast. Cut for 220/440 MHz.

MFJ-1763 is set up or taken down in seconds! Elements screw into the boom. Center mount to use vertically on FM or horizontally for SSB. Compact boom gives calculated gain within 1 dB of a 4-element Yagi with a boom nearly twice as long. Extra thick elements maintain high gain and directivity over virtually the whole 2-Meter band. Ferrite choke balun gives excellent feedline decoupling. 2 lbs. U-bolt included.



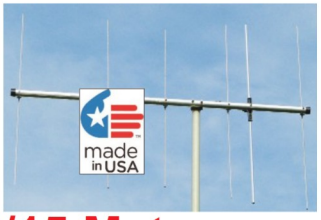
MFJ-1760 gives you a whopping 8 dBi gain on 2-Meters and 6 dBi gain on 440 MHz. 3-elements on 2M and 5-elements on 440 MHz. Only one feedline for *true* dual band performance. Point in direction of your QSO for more direction of output power. Reduces interference and increases signal strength. 17 dB front-to-back ratio on 2-Meters and 10 dB on 440 MHz. 500 Watts. 45" boom, 2 pounds.



MFJ-1768 is 7 elements on 440 MHz and 4 elements on 2-Meters. Exclusive dual band balanced feed with *Ferrite Choke*™ decoupling prevents pattern skewing-- gives low SWR. 1/4" diameter driver elements give wide bandwidth. *National Bureau of Standards* design optimized for maximum gain, clean symmetrical pattern. Mounts vertically for FM/Packet or horizontally for SSB with U-bolt on 1-1 1/2" mast. 5' boom, 2 lbs.

MFJ-1764 is a stacked 5/8 wave radiator that gives more than twice the gain of a single 5/8 wave radiator! Wide 10 MHz 2:1 SWR bandwidth, excellent ferrite choke balun feedline decoupling, shunt choke for bleeding off un-wanted static, lightweight aluminum. On 6M it's a full 1/2wave centerfed. Mount to 1-1 1/2" mast. **MFJ-1766.** 2 MFJ-1764 phased antennas. **MFJ-1765.** Phasing cable set.

MFJ 2-Meter wide-band Yagi, 144-148 MHz



MFJ-1852 versatile six-element 2-Meter band Spanner Yagi delivers 10-dBi gain with a 20-dB front-to-back ratio. R*ock bottom* SWR. Whether working weak-signal CW, SSB, digital, satellites, or FM, you'll appreciate MFJ-1852's small size, light-weight (3.5 lbs.), and stealthy good looks. No power robbing matching network or finicky tuning adjustments, CAD optimized for full-band operation using the latest advanced algorithms. Great for home QTH but it's perfect for vacations, emergency shelters, field day camp, and rover excursions. 57" boom, longest element of 41". 600 Watts. SO-239 feedpoint. It's the perfect antenna for home and adventures!

MFJ Pulsars™

Heavy duty fiberglass radomes and overlapping shells, stainless steel hardware and waterproof joints eliminate moisture/pollution.

MFJ-1526. 144/440 MHz Base/Repeater Antenna. 8.3 dB-2M, 11.7 dB- 440 MHz. 17'. 200W.

MFJ-1526N. "N" connector.

MFJ-1524. 144/440 MHz. 10 ft. 6.5 dB gain-2M, 9dB gain-440 MHz. 200W.

MFJ-1521. 4.5 feet tall but has 3dB-2M, 5.5dB-440 MHz. 200W.

MFJ-1522. 5.5 ft. 4.5 dB gain-2 Meters, 7.2 dB-440 MHz. 200W.

MFJ-1516. 2 Meter Base/ Re-peater. 7.8 dB gain-2M. 15ft.200W.

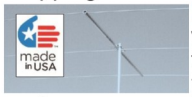
MFJ-1536. *Tribander.* 2 dB-6M, 6 dB-2M, and 8 dB gain-440 MHz. 8.2 feet. 200W.

MFJ-1538. *QuadBand.* Covers 6M/144/220/440 MHz with gain.

MFJ-1532N. *Pulsar VHF/UHF and 1.2 GHz TriBander*™ 4.5 dB gain-2M, 8.3-440 MHz, and 11.7 dB-1.2 GHz. 5 1/2 ft. N-type. 200W.

MFJ 6-Meters

MFJ-1896 6-Meter Moxon has low SWR and *broad cardioid pattern* with 5.5-dBi forward gain, high front-to-back ratio. 7 feet on 34" boom with turning radius of under 4'. 5 lbs. Great for mountain-topping and *rover* adventures!



MFJ-1762 is a light-weight 6 Meter Yagi that will quadruple your effective radiated power over a 1/2 wave dipole. 6' boom, 3-elements. 2 lbs. 300W PEP SSB. Mount vertical or horizontal.

MFJ-1756 is an Omni-directional low-angle vertical. 55" strong radiator and four 60" radials. Rugged *adjustable* air-insulated matching stub lets you obtain a near perfect 1:1 SWR. Mount to 1-1 1/2" mast with included U-bolt. Lightweight and truly portable.

10/15 Meters

MFJ-1890 is a rugged *close-spaced* 2-element 10M Yagi. 12' on a light-weight 50" boom. 8 lbs. Clean *cardioid pattern* with 3.3 dBd forward gain, 30 dB front-to-back. Mount using TV hardware. SO-239.

MFJ-1895. 15M. 16' spread on 67" boom. 3.3 dBd gain. 10 lbs.

MFJ-1790(left) 10M 11' vertical has a super low angle of radiation to focus your signal *where you want it* -- reduces QRM/Noise. Gives great DX! Two 6' aluminum radials. 3 lbs. 28.0-29.7 MHz,300W PEP SSB.

MFJ-1410T, right. Super 10M mobile gives plenty of punch and gain for *rough mobile ops*. Explore DX from your car! 53" stainless-steel radiator. Low SWR, 300W PEP SSB. 3/8-24 connector.

MFJ Discone Antenna receives 25-1300 MHz, transmits 50-1300 MHz

MFJ-1868 is an ultra wide-band antenna that receives 25-1300 MHz. Perfect for scanner enthusiasts and ham radio operators alike. Transmits 50-1300 MHz. Handles 200 Watts. Ideal for 6/2/1 1/4 Meters, 70/33/23 CM ham bands. Test various transmitters on a single coax. Includes SO-239 connector, 50 feet coaxial line, stainless steel elements and mounting hardware.

MFJ-1866 is like MFJ-1868, but only transmits from 144 to 1290 MHz.
Coax and hardware is not included.

BigEAR™ 8-Band Portable Dipole

34' of Radiating Elements!
7.0 - 55.0 MHz!!!
with MFJ-2289!

If you're headed for the hills or off to the shore, MFJ's *BigEAR*™ portable is tough, simple and really gets out!

Efficiency is the key to launching a big signal in remote areas and MFJ's *BigEAR*™ does it so well you might forget you just left the hamshack!

The secret lies in the *incredibly strong and weather-resistant stainless-steel telescopic whips* -- a 34' span, *2X the length* of others.

Add a robust 45-degree center block and our *unique Hi-Q matching system* and you have a *"pair of ears"* that digs out the weak ones.

34' of signal-radiation available -- you won't be handicapped by power-robbing losses of loading coils.

Get consistent performance and max RFI protection because *our lab-rated Guanella Balun* is built right into the feed assembly. Proven to be highly effective across the full tuning range.

Heavy-duty components keep it up. 1kW PEP power. Sturdy aluminum and stainless-steel. Includes U-bolt for up to 1 3/4" masts.

MFJ-6204. *BigEAR*™ *Carry Bag,* 5Wx7H x42L" packs big ear and tripod/ mast to the field. Burlap padding, snaps, zipper, protection pockets, carry handle and strap.

MFJ-2289PKG. *BigEar*™, tripod/mast, carry bag combination.

Big Stick 8-Band Vertical Antenna

For Top Portable Performance, Carry a "Big Stick"! MFJ-2286 is a rugged 17' *stainless-steel* whip paired with an adjustable *high-Q* air-wound coil. You get true backpack portability. Antenna is 18' fully extended but breaks down quickly to 28" in seconds.

It's Light Weight! Just over 2 lbs., you'll hardly know it's there! Has MFJ-342T pipe mount -- quickly and easily mounts to a 1/4 or 1/2" pipe or mast. SO-239 with lock washer feeds coax underneath the 3/8-24 connector.

Tapped loading coil covers 7.0-55.0 MHz without gaps. Great for Ham Bands and outstanding for image-free shortwave broadcast!

Counterpoise kit included: Ensures low SWR, high efficiency, maximum site safety. Handles 1 KW.

BigStick™ is for Ham radio operators on the go *and hungry for the great QSO anywhere, anytime!*

MFJ-2286PKG. *BigStick*™, carry bag and 25 feet coax.

20M to FM Broadcast Multiband Portable Telescopic Dipole Antenna

MFJ-2299 is a rugged *continuously adjustable* stainless-steel dipole that covers FM broadcast band thru 20M. Sets up quickly and makes a great temporary antenna for apartments, motels, RVs, and other adventures. Great for field day!

Full-size 1/2 Wave element delivers high-efficiency you need to work QRP, DX or monitor distant shortwave broadcasts from any location. Frequency coverage is continuous. Optimum length may deviate slightly depending upon factors such as height above ground, proximity to nearby objects, etc. Adjust for lower SWR.

MFJ-2299 is MFJ-347 dipole mount and two MFJ-1979 17' stainless-steel telescopic whips. 3/8x24 studs, collapsible to 27 inches.

Super quick and easy to put together. Just screw the bracket onto your mounting pole, screw in the whips and add your coax!

MFJ *"HF Stick"* mini-Dipole Mount

MFJ-347 lets you build your own 80-6M *mini*-dipole using two HF mobile whips! Mast mount to 1 1/4" OD. Super heavy-duty solid aluminum construction. Exclusive, *isolated* dipole elements let you insert balun or coil up coax to isolate feedline. True *balanced dipole* prevents RF on coaxial shield, eliminates pattern distortion, reduces noise pickup and RFI radiation and provides deep dipole end-nulls for nulling out interference.

Single-band Rotatable *mini-Dipoles*

Use these inexpensive, lightweight, *isolated* mini-dipoles when space is limited for temporary or permanent installations. Rotate to null QRM/noise and to focus your signal. Includes two HF sticks of your choice and mini-dipole mount.

Your Choice:
MFJ-2275 - 75M
MFJ-2260 - 60M
MFJ-2240 - 40M
MFJ-2230 - 30M
MFJ-2220 - 20M
MFJ-2217 - 17M
MFJ-2215 - 15M
MFJ-2210 - 10M
MFJ-2212 - 12M
MFJ-2206 - 6M

Portable Tripods

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Tripod *plus* fit
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d, 4"dia. 6 3/4

918EX. Add
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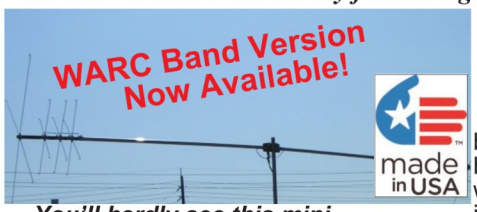
tom. 6.5 lbs.

½ Wave, 6/9 Band *Rotatable* Mini-Dipole

Low profile 14 feet . . . 7 ft. turning radius . . . 40, 20, 15, 10, 6, 2 Meters . . . 1500 Watts . . . Directivity focuses signal, reduces QRM/noise . . .



MFJ-1775 — 6-Bands: 40, 20, 15, 10, 6, 2

MFJ-1789 — 9-Bands: 40/30/ 20/17/15/10/6/2

You'll hardly see this mini 14' rotatable dipole!

Tiny 7' turning radius fits on smallest roofs -- perfect for apartments and condos.

MFJ-1775 is inconspicuous and low profile -- not much bigger than a TV antenna and easily turned by a lightweight TV rotator.

It's no Wimp! *Directivity* reduces QRM/noise, lets you *focus* your signal in the direction you want -- work some *real* DX.

Operate 40/20/15/10/6 and 2 Meters -- and run a *full 1500 Watts* SSB/CW on all HF bands!

Features automatic band switching and uses highly efficient end-loading with its *entire length* radiating. It's ham radio's most versatile *rotatable* dipole!

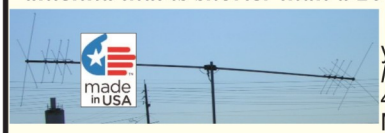
Each HF band uses a separate, efficient end-loading coil wound on fiberglass with *Teflon*™ wire, and capacitance hats at each end (no lossy traps). 6/2M are *full-length* halfwave dipoles.

Incredibly strong solid rod fiberglass center insulator and 6063 T-6 aircraft strength radiator. Assembles in an afternoon. Adjusting one bands has little effect on other bands.

MFJ-1775W. WARC band version, 12/17/30/60M only.

MFJ 80/40/20M *Rotatable Dipole*

A full legal limit efficient 80, 40, and 20-meter antenna that is shorter than a 20-meter dipole…



MFJ-1785 lets you operate the *low bands* on 80, 40, and 20 Meters with a true rotatable dipole that'll blend in with the sky!

Take advantage of the excellent propagation of the low bands during the low sunspot cycle.

Focus your signal in your desired direction so you can work some real DX! Small, low profile.

Entire antenna length is used on all three bands. The MFJ-1785 is constructed of 6063 T-6 aircraft strength aluminum tubing with a solid center fiberglass insulator and handles 1500 Watts SSB/CW.

The 80 and 40 meter end-loading coils are wound on fiberglass forms with *Teflon*™ wire, and resonated with capacitance hats to ensure an extremely low-loss structure.

Balun included! 33 feet wide.

Requires medium-duty rotator like AR-40.

MFJ 20/15/10/6 Meter Rotatable Dipole

Full-size *high-effiency* 26', 20/15/10/6M full legal limit rotatable dipole is super low-profile -- almost invisible from across the street! 13' turning radius, tiny 9 lb. weight fits on small roofs, apartments and condos -- easily turned by a lightweight rotator like *Hy-Gain's*® AR-303/500. Mount in the attic for antenna restrictions. *It's no wimp!* Bi-directional pattern reduces QRM/noise while maximizing your signal in the directions that you want -- work some real DX! 1500 Watts SSB/CW. **MFJ-1761.** 6-Meter add-on kit.

MFJ Pipe-to-Pipe Mast Kit

MFJ-1909 allows mounting of vertical antenna or mast to tripods (**MFJ-1919/1918**). Includes 8 heavy-duty extruded aluminium clamps and stainless steel hardware. Fits mast pipe from 1 to 2 inches in diameter.

Build your own wire antenna with these special MFJ parts . . .

Coax *Center* Insulator
MFJ-16B01. Built-in SO-239, super strong, UV resistant, custom injection molded, hang hole for inverted vees, wire tie points, lightweight.

Center Insulator for Dipole Antennas
MFJ-16G01. Strong, resistant, custom ction molded, hang- hole, multi-band dipole ends. Use 1/4 or 3/8' diam. coax.

End Insulator for Multi-Band Dipole Antennas
MFJ-16H02. Two for multiband doublets. 7", (178 mm). Heavily serrated end insulators with 5/16" holes. Aluminum tube inserts in end holes for max loads.

MFJ Glazed Ceramic Center/End Insulator
MFJ-16C01 each.
MFJ-16C06 Six Pack.
Authentic *glazed ceramic* insulator is extra-strong -- won't break with long antennas, won't arc over or melt even under full legal limit. Molded ridges give extra-long p prevent high-voltage breakdow wire holes prevent wire damag as center or end insulator for d doublets, G5RVs, guy wires, ve

MFJ Glazed Ceramic Egg Insulator
MFJ-16A01 each.
MFJ-16A06 Six Pack.
Authentic *glazed ceramic* egg insulator, 7/16" holes, 9/64 dia. by 2 1/8 length. High power will not melt like plastic ones d

Ladder Line *Center* Insulator
MFJ-16D01. Fiber-glass, 450 Ohm ladder line *center* insulator. Double weave ladder line stress-relief. Strong wire tie points. Hang hole for s.

***Middle* Insulator**
1. Fiberglass *iddle* insulator. h SO-239 coax idpoint. Quad- -thru ladder line

***End* Insulator**
. Strong fiber- Ohm coax con- le weave.

Tripod Anchor Foot Braces

MFJ-1905

Hold your tripod extra sturdy with these stainless steel anchor foot braces. 3-pack, stainless hardware fits MFJ or others. Ground secure with two spikes (not included.). For high winds or unlevel ground. Fits tripod leg up to 1 1/2"dia.

5.5 ft. Heavy-Duty Antenna Mast Tripod

Use this *super heavy-duty M 1921 antenna mast tripod* to ho masts 1.25 up to 2.5" diameter Adjustable thumb screws have protective tips. Huge *8' diamet* is great for holding massive antennas or big masts sturdy, safely. Base minimum height is 50", set to maximum at 78".

Each leg has independent height adjustment 0-18" with thumbscrew and locking pin

nts slipping -- use on *ground surfaces.* id rubber feet, can nchor foot braces. **ame** is black 1 3/8" r strong steel pipes. lapses fast and easily t up in minutes. eighs just 14 lbs. Wx69Hx7D inches. 14 lbs. -- true portability.

MFJ Telescopic Fiberglass Masts

Lightweight Telescopic Portable Masts -- 20-43 feet!

Pull out each section, twist to lock. Portable, temporary telescopic fiberglass masts extend to the sky! Select from 20 to 43 feet, 5 models.

Each mast collapses for true portability. Fiberglass masts are also super lightweight and with high strength. Weight is not a factor -- the largest mast, MFJ-1917 weighs just 7.7 lbs. Twist and Lock sections allow quick pull-up and take-down.

Use while traveling, camping, hotels, hamfests, field day, DX-peditions. MFJ-1917, thelargest mast can be used for a full-time permanent wire installation or small, lightweight beam or vertical.

Put up a full-size inverted Vee, dipole or vertical in minutes. Get full size performance and the height you need to QSO with anyone, anywhere.

Use multiple telescopic masts to construct other types of antennas like loops, quads, rotatable dipoles even beams. The ideas are endless!

A. MFJ-1910. 33 ft., light duty use, top tie ring.
B. MFJ-1911. 20', light dutyuse, top tie ring.
B. MFJ-1913. 28', light duty use, top tie ring.
C. MFJ-1915. 25 ft., for heavy duty use.
C. MFJ-1916. 34 ft., for heavy duty use.
C. MFJ-1917. 43 ft., heavy duty, top tie ring.

FIGURE	Model No. MFJ-	Max Height	Collapsed Length	Top Dia. Inches	Bot Dia. Inches	Bot Thick Inches	Top Thick Inches	No of sections Total	Weight in lbs.
A	1910	33 ft.	3.75ft	.100	1.750	.057	.032	10	3.3
B	1911	20 ft.	3.83ft	.877	1.830	.080	.050	6	3.6
B	1913	28 ft.	3.83ft	.333	1.830	.080	.032	8	4.4
C	1915	25 ft.	4.79ft	1.02	2.165	.096	.050	6	6.8
C	1916	34 ft.	4.79ft	.686	2.165	.096	.050	8	7.5
C	1917	43 ft.	4.79ft	.160	2.165	.096	.038	10	7.7

Super-Strong Fiberglass Mast -- Select 10, 22, 33 or 43Feet!

MFJ-1904H *21 Feet* | MFJ-1904HD *24 Feet* | MFJ-1906H *33 Feet* | MFJ-1906HD *38 Feet* | MFJ-1908H *41 Feet* | MFJ-1908HD *48 Feet*

Left: *Stainless Steel Hose Clamps* (use nut/screwdriver). Fiberglass is slotted. **Right:** Military UV protected *Quick-Clamps*. Guy 2 levels when fully extended.

This is a *super-strong* heavy duty telescoping MAST, not a flimsy pole! Made of .125" *thick wall* fiberglass tubing. Support *"real"* weight including small yagis, verticals, loops, full-size dipoles, more.

Standard models and H models have 2-inch OD bottom sections and a 3/4" top section.

HD models are extra heavy-duty, they have 2 1/2" OD bottom and 1" OD top sections. Standard model is supplied with stainless steel hose clamps. H and HD come with military quality UV protected *QuickClamps*™.

MFJ-1906/MFJ-1906H. 33 feet extended, 6 ft. collapsed, six 6-ft. sections, 13 lbs.

MFJ-1908/MFJ-1908H. 41 feet extended, 7.75-ft. collapsed, six 7.75-ft. sect.,16 lbs.

MFJ-1908HD. 48' ext., 7.75' collapsed, 2 1/2"OD bottom, 1"OD top, seven 7.75-ft. sect.,24 lbs.

MFJ-1906HD. 38' ext., 6' collapsed, 2 1/2"OD bottom, 1"OD top, seven 6' sect., 24 lbs.

MFJ-1904HD. 25' ext., 4' collapsed, 2 1/2" OD bottom, 1" OD top, seven 4 ft. sect., 14 lbs.

MFJ-1904H. 22' ext., 5' collapsed, 9 lbs.

MFJ-1902H. 10' extended, 38" collapsed, weighs 5 lbs., true portability!

MFJ-1900. Mast base mount. *See left.*

MFJ-13. Set of 5 *QuickClamps*™. Fits 1/2"-2" OD. Use with fiberglass or aluminum masts.

MFJ-13HD,. Extra clamps, 1/2-2 1/2" OD.

Antenna Balun/Unun, Center Insulators & RF Isolators

MFJ Hi-Permeability Ferrite Bead Baluns

Choose from 1:1, 4:1 or 9:1 baluns . . .

MFJ-918

True Current Balun/Center Insulator forces equal antenna currents in dipoles for superior performance. Reduces coax feedline radiation and field pattern distortion -- your signal goes where you want it! Reduces TVI, RFI and RF hot spots in your shack. MFJ 1:1 baluns use hi-permeability ferrite beads on high-quality RG-303 *Teflon*(R) coax. 4:1 and 9:1 baluns use RG-58 coax. Handles 1.5 kW, 1.8-54 MHz. Has *Teflon*(R) connectors, stainless hardware with direct 14-gauge stranded copper wire connector to antenna. 1:1, 4:1 or 9:1 for dipole antenna uses.

For Center-fed Dipoles . . .

Made of heavy-duty weather protected PVC with *Teflon*(R) SO-239 connector, stainless steel eye bolts.

MFJ-918. 1:1 balun. 2" diameter by 6 inches length.
MFJ-2919. 4:1 balun, 2" diameter by 11 inches length.
MFJ-2920. 9:1 Bead balun, 1.8-30 MHz, 1.5 kW.

For portable uses . . .

MFJ-918BP

Made of heavy-duty weather protected PVC. Pair of red and black 5-way binding posts and *Teflon*(R) SO-239.

MFJ-918BP. 1:1 balun, 2"dia.x6" long.
MFJ-2919BP. 4:1 balun, 3 1/2x3 1/2"
MFJ-2920BP. 9:1,binding posts.

For Wall mount uses . . .

ABS weather-proof cover with mounting bracket for tower, mast or wall. 7Wx3Hx5 3/8D in. *Teflon*(R) SO-239 input and binding post outputs.

MFJ-918WM. 1:1 Balun.
MFJ-2919WM. 4:1 Balun.
MFJ-2920WM. 9:1 Balun.

MFJ-918WM

True 4:1 Current Balun/Center Insulators

MFJ-913

MFJ-913/MFJ-919 are true current baluns/ antenna center insulators that transform 200 ohms to 50 ohms. Transmission Line Transformer construction using 100 ohm characteristic impedance transmission line gives flat 160-10 Meter response. Low permeability ferrite cores, SO-239, stainless steel hardware with direct 14 gauge stranded copper wire connection to antenna. Heavy duty weather housing. **MFJ-913** handles 300 Watts and is 4 1/2"Hx2 inches in diameter.

MFJ-919

MFJ-919 handles 1500 Watts, 3 1/2W x3 1/2H x2 1/2D".

MFJ-915 RF Isolator

Stop RF from traveling on coax lines

MFJ-915

MFJ-915 *RF Isolator* prevents unwanted RF from traveling on the outside of your coax shield into your expensive transceiver. This unwanted stray RF can cause painful RF "bites" when you touch your microphone or volume control, cause your display or settings to go crazy, lock up your transceiver or even turn off your power supply. In mobile installations, stray RF can be even more drastic and harmful -- it could cause your car to do funny things or even (tragically) blow your automobile's computer system. Clear up these problems, plug an MFJ-915 RF Isolator between your antenna and transceiver and then relax. Heavy-duty weather protected PVC is just 5"Wx2" diameter. Handles 1.5 kW, 1.8-30 MHz.

MFJ All-Band G5RV Antennas

Operate all bands through 10 Meters, even 160 Meters, with a single wire antenna!

***MFJ's** famous G5RV antenna is the most popular antenna in the world!* Strong signals from G5RVs day or night, 24/7.

And no wonder . . . it's an efficient, *all band* antenna that's only 102 feet long -- shorter than an 80M dipole. 32.5 ft. ladder line matching section ends in an SO-239 for feedline.

MFJ-1778

Use as Inverted Vee or Sloper, and it's more compact and just one support.

With an antenna tuner operate all bands 80 Meters through 10 Meters and even 160 Meters with an antenna tuner and a ground.

MFJ's fully assembled G5RV handles 1500 Watts. *Hang and Play™* -- add coax, some rope to hang and you're on the air!

MFJ-1778M. *Half-size*, 52 foot *G5RV JUNIOR* covers 40-10 Meters with tuner. Handles 1500 Watts.

MFJ All Band Doublet

102 foot *all band* doublet antenna covers 160-6M with a balanced line tuner. Super strong custom fiberglass center insulator provides stress relief for ladder line (100 ft. included). C*eramic* end insulators. Handles 1500 Watts.

MFJ-1777

Folded Dipole Portable Antennas

Single band, *lightweight*, portable folded dipoles. Low SWR, direct coax feed, 200 W.

Perfect for MFJ Rigs! **MFJ-1774B** (40M); **MFJ-1773B** (30M); **MFJ-1772B**(20M); **MFJ-1771B**(17M); **MFJ-1770B** (15M); **MFJ-1770C** (10M); **MFJ-1776B** (6M);

MFJ *Single Band* Dipole Antennas

MFJ-1779A 265 ft., 160M | MFJ-1779B 135 ft.,80-40M | MFJ-1779C 35 ft., 20-6M

Ultra high quality center-fed dipoles give *trouble-free* operation. Custom injection-molded UV-resistant center insulator, built-in SO239, hanghole. Heavy duty 7-strand, 14-gauge hard copper wire. Extremely strong solderless crimped construction. Authentic *glazed ceramic* end insulators. Use as horizontal, sloping dipole or inverted vee. 1.5 kW. Cut to length with cutting chart.

Dual Band HF Dipole Antennas

80/40 Meter Dipole Antenna

MFJ-17758 80/40M | MFJ-17754 40/20M

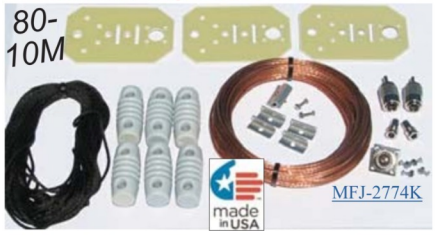
MFJ-17758.

Short 95 ft. long *dual band* 80/40 Meter dipole antenna is *full-size* 40M, ultra-efficient end-loading on 80M. 1.5 kW. Super-strong injection-molded center insulator, built-in SO239, hanghole. Solderless, crimped construction. 7-strand, #14 ga. hard copper wire.Connect coax directly, no tuner needed.

40/20 Meter Dipole Antenna

MFJ-17754. Like MFJ-17758, 42' 40/20M dipole. Full-size 20M, ultra-efficient end-loading on 40M.

DELUXE Dipole Antenna Kit



MFJ-2774K

MFJ-2774K is a deluxe dipole kit that gives you all you need to build several dipoles!

Get three multi-purpose center insulators, 100 feet of 1/8" nylon rope, copper wire, two PL259 connectors, two RG-58 reducers, SO-239 connector, stainless steel screws and nuts, and six ceramic insulators.

Make G5RV, doublet or dipole antennas. Center plates have pre-punched holes to secure and relieve the stress of your feedline weight. Use ladder line or coaxial. Pre-punched hole for SO-239 connector.

Optional feedlines available below.

MFJ-18H050. 50' 450 Ohms.
MFJ-18H100. 100' 450 Ohms.
MFJ-5850.50' RG-58, PL259.
MFJ-58100. 100'RG58, PL259.

Other Coax, lengths available.

20 Meter *Extended Double Zepp*

90', 20M *Extended Double Zepp gets a Whopping 3 dB gain* -- doubles your power! 80-10M with tuner. 100' ladder line, *glazed ceramic* end insulators, ladder line stress relief fiberglass center insulator, 7-strand, #14 ga. hard copper wire. 1500W. Requires tuner/balun.

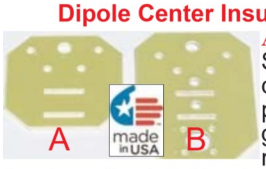
MFJ-1742

80M *End-Fed Zepp*

High performance, no compromise *End-fed Zepp. Use when center feed is not possible or desirable. 125'* long, includes 100 feet ladder line. Strong fiberglass insulator provides ladder line stress relief. *Glazed ceramic* end insulator. 1500 Watts. Requires balanced line antenna tuner or tuner/balun.

MFJ-1748

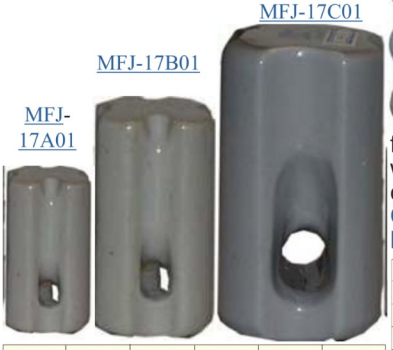
Dipole Center Insulators



A. MFJ-16D01. Super strong custom punched fiberglass stress relieving center insulator for 450 Ohm ladder line.

B. MFJ-16D02. Feed line stress relieving insulator has pre-punched holes to secure, relieve stress of your feedline weight. Can be used with 450 Ohm ladder line or coax feedline. Pre-punched holes for SO-239 connector.

MFJ *Compression* Ceramic Insulators



MFJ-17C01
MFJ-17B01
MFJ-17A01

Model	Cable dia.	Hole dia.	Height	Diam.	Force-lbs
17AO1	1/4"	.256"	2.32"	1.61"	N/A
17B01	5/8"	.630"	3.50"	2.52"	10,000
17C01	3/4"	.787"	4.25"	2.87"	12,000

Aluminum or Fiberglass Mast Guy Rings

Fits standard aluminum, fiberglass tubing from 3/4"-1¼" dia. OD. Strong aircraft grade aluminum is 1/8" thick and 2½" OD. Fiberglass are 1/8" thick FR4. Five 3/8" holes punched for 3 or 4 point guy lines. Holes are chamfered which provides for a smooth surface for guy line connection. Buy *aluminum-type*, **MFJ-2830A/B/C,** or *set-of-3*, **MFJ-2830X.** Buy *fiberglass-type*, **MFJ-2840A/B/C** or a *set-of-3*, **MFJ-2840X.**

Model#	Type	Description
MFJ-2830A	Single	2 ¾" OD alum. Guy ring for 3/4" tube.
MFJ-2830B	Single	2 ¾" OD aluminum Guy ring for 1" tube.
MFJ-2830C	Single	2 ¾" OD alum. Guy ring for 1 ¼" tube.
MFJ-2830X	3-Pack	Set of 3 alum. guy rings, has all 3 above.
MFJ-2840A	Single	2 ¾" OD fiberglass Guy ring, 3/4" tube.
MFJ-2840B	Single	2 ¾" OD fiberglass Guy ring for 1" tube.
MFJ-2840C	Single	2 ¾" OD fiberglass Guy ring, 1 ¼" tube.
MFJ-2840X	3-Pack	Set of 3 fiber guy rings, has all 3 above.

MFJ End-Fed Zepp Antennas

2-elements, 2 dB gain . . .4-elements, 4.5 dB gain . . . Very Quiet . . . Handle 1500 Watts . . .

Two and Four Element Arrays

Single band *two* half-wave element collinear array gives you nearly *2 dB gain* -- about 150% power gain -- *twice* the receiving capture area of a half-wave dipole. They have direct coax feed and low SWR across the entire band.

The MFJ-64XX *four* half-wave element collinear array gives you a whopping *4.5 dB gain* -- about 300% power gain. You get *four* times the receiving capture area of a half-wave dipole -- you'll hear DX you've never heard before! They require a balanced line tuner or a tuner with balun.

Hang and Play™!

Virtually *hang and play™* when you receive them. No cutting, soldering, tuning, or trimming needed. Follow easy set-up instructions and you're on-the-air!

They are completely assembled and include super strong custom fiberglass center insulators, authentic glazed ceramic end insulators, heavy duty 7-strand, 14 gauge hard copper element wire and an extremely strong, solderless, crimped construction.

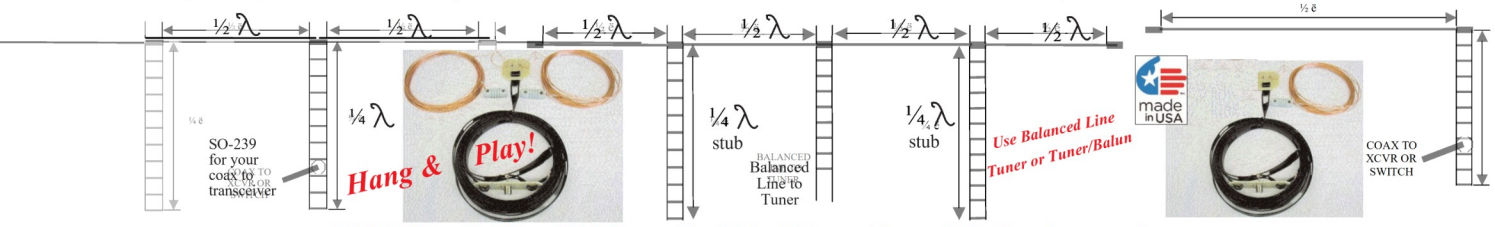
With larger capture area and power gain, you'll hear & work more DX than ever before!

A pair of these at right angles can provide worldwide coverage. These arrays radiate bi-directional perpendicular to the wire and handle full 1500 Watts and reduce noise up to three S-units below verticals.

Feedline and stub simply hangs from antenna and is bent at the bottom or pulled away at an angle to make it convenient.

1/2 Wave End-Fed Zepps

When an end-fed is desirable or when a center-fed is not possible or convenient, *hang and play™* end-fed Zepps provide excellent no-compromise performance. The Zepp is a *completely assembled* single band half-wave antenna. Designed for *direct coax feed* and handles a full 1500 Watts with low SWR. Just follow easy installation instructions -- no cutting, soldering, tuning, or trimming. They radiate in a wide broadside pattern. Feedline/stub can be "bent" at bottom, pulled away at an angle. Super-strong fiberglass feed point insulator, glazed ceramic insulator, heavy-duty 7-strand, 14 gauge hard copper wire, strong solderless crimped-construction. Super-strong custom fiberglass SO-239 mount provides stress-relief for ladder line.



MFJ Plug & Play 1/2 Wave End-Fed Zepp, 5 models to choose from

MFJ-6115. 15 Meters, 23 feet horizontally, 10 feet vertically.

MFJ-6117. 17 Meters, 27 feet horizontally, 12 feet vertically.

MFJ-6120. 20 Meters, 35 feet horizontally, 16 feet vertically.

MFJ-6130. 30 Meters, 48 feet horizontally, 22 feet vertically.

MFJ-6140. 40 Meters, 68 feet horizontally, 30 feet vertically.

Coax feedline not included.

MFJ W9INN Balun Box

MFJ-912

Converts unbalanced coax to balanced ladder transmission line. *Giant* 2-core 4:1 balun wound with *Teflon*(R) wire. 3¼x2¼x7". Heavy duty ceramic feed-thrus. 1500W full legal limit. SO-239. Ground post, mount holes.

Switchable 1:1 or 4:1 Current Balun/Unun

MFJ-911H made in USA

Switchable 1:1 or 4:1 current balun/unun. *Transmission line transformer* uses low-permeability ferrite cores to give amazingly flat response 1.8-30 MHz. Transforms 200/50 ohm balanced or unbalanced loads to 50 ohms. Ground post. 300W. 2½Wx4¾Hx1D".

True 4:1 Current Balun/Unun

MFJ-911

True 4:1 current balun/unun transforms 200 ohm balanced and unbalanced loads to 50 ohms. True *transmission line transformer* gives an amazingly flat response 1.8-30 MHz. 2 low-permeability ferrite cores, 300 watts. Ground post. 2½Wx4¾Hx1D inches.

made in USA

Yagi Boom-Mounted Balun

MFJ-2911 made in USA

1:1 current-choke balun mounts on the boom of your HF or 6-Meter Yagi to transition from unbalanced (coax) to the balanced driven element. Prevents pattern distortion from imbalance, radiation from outer surface of coax, element de-tuning, RFI to consumer electronics and noise transfer to the rig's receiver. Toroid style transmission line choke rated for maximum power on SSB/CW delivers an impressive 35 dB of thru-transmission (S21) common-mode isolation. Molded case, SO-239 connector. 5½Wx2Hx3D in.

MFJ Wall-Mounted Balun

MFJ-2912 made in USA

Mounts on exterior wall of your shack to keep RF out of your operating position and away from internal house wiring. Prevents electrical noise generated in your location from migrating up to the feedpoint and raising your radio's noise floor. Toroid-style transmission-line choke is rated for maximum legal power on SSB/CW. Delivers an impressive 30+dB of thru-transmission (S21) common-mode isolation on 80-10M. Disconnect point for lightning protection. Stainless hardware, rugged components. SO-239. 4Wx2⅛Hx2¾D".

MatchMaker ™ Feed Network

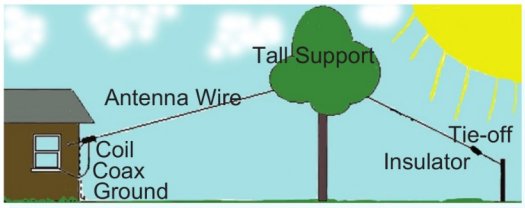
MFJ-2975H made in USA

Raise your HF dipoles high above ground for better DX without losing that perfect 1:1 match! This center block transforms 75 Ohm loads down to 50 Ohms. Has a superbly effective 1:1 current balun for transition from balanced element to coaxial line. 1.5kW PEP SSB/CW. 4Wx1½Hx2¾D inches.

MFJ-29100H. Transform 100 Ohms to 50 Ohms. MFJ-29100H has the same features as the MFJ-2975H.

80-10M End-Fed Half-waves

Cover all HF bands with one single wire and no tuner!



- **Full HF coverage**, no tuner needed on most frequencies.
- **No long counterpoise**, radials or feedline required
- **Rugged** weather-resistant 50-Ohm **matching network**
- **Fast setup** and **takedown**
- **Easy storage/transport**
- **Stainless hardware**, UV resistant materials throughout

End-Fed Horizontal Wires (EFHW) cover multiple bands without traps, stubs, or resonators.

End-fed radiators have the unique quality of resonating on the 1/2-wave fundamental frequency plus odd/even harmonics above!

Broad-band matching transformer at feed point lets the entire HF spectrum be yours! SWR is so low you may never need a tuner.

Get on the air! Just one high center or end support -- installation is fast for home, road, emergencies.

EFHWs install virtually anywhere in minutes!

MFJ-1982HP

Comes with a rugged insulated-wire radiator that prevents detuning when contacting limbs/branches. *"No-snag"* end insulator slides over branches and through foliage without hang-ups.

Toss your EFHW over a limb for an inverted-V, raise far end high for a powerful sloper, or even go vertical with an inverted-L. Dark jacketed wire is virtually invisible -- ***Don't let antenna restrictions keep you off the air!***

It's no secret that weather events are getting stronger -- the EFHW makes a great emergency back-up for your regular antenna.

Power ratings are in Watts PEP for SSB/CW modes, with 50% or less transmit time (ICAS). Each network designed and tested to ensure great performance in wide range of operating conditions.

End-fed horizontal wire, an *EFHW*, offers the perfect solution for a wide range of ham activities.

Whether QRP backpack, vacationing, or emcomm, use an antenna neighbors will never see,

MFJs got an EFHW for you:

MFJ-1982LP. 30 Watts QRP, 80-10 Meters. 132 feet

MFJ-1984LP. 30 Watts QRP, 40-10 Meters. 66 feet.

MFJ-1982MP.300 Watts Restricted space, 80-10M, 132 ft.

MFJ-1984MP.300 Watts Restricted space, 40-10M, 66 ft.

MFJ-1982HP. 800 Watts, high power, 80-10 Meters. 132 ft.

MFJ-1984HP. 800W, high power, 40-10 Meters. 66 feet.

Typical SWR, MFJ-1984 LP

Band	Frequency/SWR	2:1 SWR Span
80M	3.65 / 1.1	3.5-3.9
40M	7.19 / 1.4	Full Band
30M	10.8 / 1.3	Tuner Req
20M	14.3 / 1.3	Full Band
17M	18.1 / 1.8	Full Band
15M	21.25 / 1.1	Full Band
12M	24.9 / 1.5	Full Band
10M	28.2 / 1.0	28.0-28.80

MFJ UltraLite ™ and PowerLite ™ OCFD Wire Antennas

Delivers Amateur Radio's most-interesting DX bands -- 40, 20, 10 & 6 Meters -- to your fingertips!

MFJ-2010 *Ultra-Lite*™ for 40/20/10/6M, 300 Watts PEP.

Perfect for low-profile portable and QRP operation. Weighs less than two pounds and pulls high in the air with lightweight cord.

Virtually invisible 66-foot jacketed wire element delivers up to 6-dBi gain on 40M, 9-dBi on 20M, and a whopping 11.5-dBi gain on 10/6M! Long leg 44.6, short 22.3 feet.

Day or night, there's DX on these bands. If you hear it, you'll work it -- even QRP!

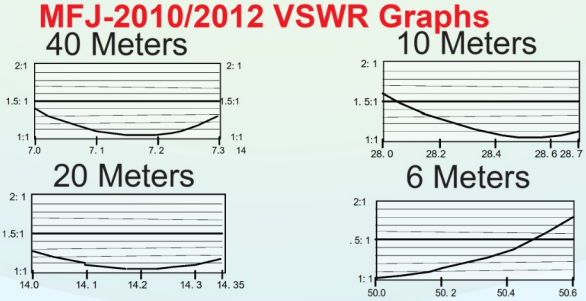
MFJ-2013. Ultra-Lite™ 60/30M. 300AW PEP SSB. 1/2 wave dipole ERP on 60M plus up to 9-dBi of globe-spanning gain on 30 Meters. Brings a whole new meaning to 30-

MFJ-2012. *Power- Lite*™ 40/20/10/6M,1500 Watts PEP CW/SSB. 67 feet long. Long leg is 44.6, short leg is 22.5 feet. Robust high-power version of the MFJ-2010 with 14-guage stranded-copper wire and porcelain end insulators. Pull-tested 200 lbs.

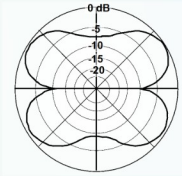
MFJ-2014*Power-Lite* ™ for 75/40M, 1.5 kW PEP CW/SSB. Replace your old 75-M dipole and add 40M coverage with up to 9-dBi of *powerhouse gain!* Rugged 122' long. Great for foreign broadcast and 7-MHz! Long leg is 90' 6", short leg (coil) is 30'.

MFJ-2016. *Power-Lite*™ for 160/75/40 Meters, 1500 Watts PEP CW/SSB. Covers the low end of 160 Meters plus delivers 9-dBi gain in the 75 Meter SSB DX window. Heavy-duty components, rugged construction. 240 ft.

MFJ-2010/2012 VSWR Graphs

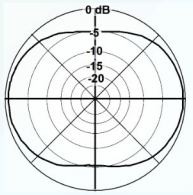


40-Meter Pattern, MFJ-2014
20-M Pattern, MFJ-2010/12



Outer Ring 9.1 dBi

75-Meter Pattern, MFJ-2014
40-Meter Pattern, MFJ-2010/12



Outer Ring 6.5 dBi

MFJ Antennas for Restricted Areas

MFJ Super High-Q Loop™ Antennas

MFJ's *tiny* 36" diameter loop antenna lets you operate 10-30 MHz *continuously* -- including the WARC bands!

Ideal for limited space -- apartments, small lots, motor homes, attics, mobile homes. Enjoy DX and local contacts mounted vertically. Get low angle radiation for excellent DX and high angle radiation for local contacts. 150 watts.

Super easy-to-use! MFJ's super remote control has *Auto Band Selection™*. It auto tunes to desired band, then beeps to let you know. No control cable is needed. Fast/slow tune buttons and built-in two range Cross-Needle SWR/Wattmeter lets you quickly tune to your exact frequency.

Welded construction, no mechanical joints, butterfly capacitor, no rotating contacts, 1.050" diameter round radiator -- not a lossy thin flat-strip -- *gives you highest possible efficiency*.

MFJ-1788/1786 butterfly capacitors

Each plate of the tuning capacitor is welded for low loss, polished. Prevents high voltage arcing. Welded to radiator, nylon bearing, anti-backlash, limit switch, continuous no-step DC motor -- smooth precision tuning.

Heavy duty thick ABS plastic has ultraviolet inhibitor protection.

MFJ-1788. Like MFJ-1786 but covers 40-15M continuous.

MFJ-1782. Like MFJ-1786, has fast/slow tune controller.

Box Fan Portable Loops

MFJ-1780.

The MFJ box fan portable loop antenna is about the size (2x2') of a box fan, complete with handle. Covers 14-30 MHz. Includes MFJ-1782 remote control box with fast and slow tune buttons. Carrying handle.

MFJ-1783. Deluxe box Loop Antenna with remote control. For 30-40 Meters. Slightly larger than the original box fan loop antenna but are still lightweight enough to take them portable. 24 lbs. 36Wx36Hx4D inches.

MFJ-1784. Like MFJ-1783 but covers 40-15 Meters.

40/30/20/17/15/12/10 Meter ground mounted Vertical

MFJ-1794

High performance, low cost, low profile, ground mounted. 7 bands: 40, 30, 20, 17, 15, 12, 10 Meters, 1500 W.

Permanent or temporary for restricted spaces.

Full 11' collapses to 7 feet. Easily hidden.

Automatic bandswitching, low radiation angle for DX, omni-directional. Highly efficient end-loading. Entire length radiates. Low SWR.

Ground or roof mount with radials, ground rod.

Hardware, U-bolts included.

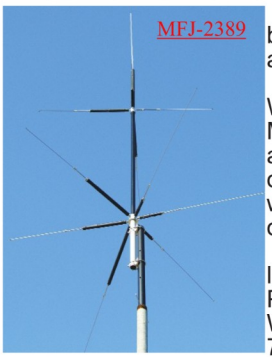
MFJ-1795. **Like** MFJ-1794 but covers 40/20/15/10M.

MFJ-1795W. **Like** MFJ-1795 but for 12, 17, 30, 60M.

MFJ-1901P95. MFJ-1795 and MFJ-1901 combination.

MFJ Compact Vertical Antennas 80/40/20/15/10/6/2/UHF

MFJ-2389



Get 8 popular bands in one antenna!

You get a 1/4 Wave on HF, 80-6 Meters, a 1/2 Wave and 2.15 dBi gain on 2M, 5/8 Wave with 5.5 dBi gain on 440 MHz.

SWR is 1.5:1 or less, 200 Watts PEP SSB, 150 Watts on 6M to 70CM on FM.

Weighs less than 6 lbs. and just 8.5 feet tall, this antenna lets you mount in a restricted space environment such as an attic or balcony. Its ground radial system is built-in, so no fooling with counterpoise wires. SO-239 feedpoint connection.

HF/6M Ground-Plane Vertical

MFJ-2386

Broadband vertical antenna with no ground radials is super easy to assemble. No tuning! SWR < 1.6:1, 3.5-54 MHz. Receives 2.0-90 MHz. 250W SSB PEP. 23.5' and only 7 lbs, easily raise it up and down for stealth operation. Use 1 5/8 inch diameter mast. Wind survivability is 67 MPH. SO-239 for coaxial connection.

Feather-Lite™ 80-6 Meter Antenna

Self-supporting vertical antenna sets up in minutes, collapses to 3.8 feet -- perfect for RVs, vacations, field day. This is more than a simple "flagpole", this antenna includes a base-loading coil, balun, and counterpoise wires.

MFJ-2980
40-6 Meters

MFJ-2982
80-6 Meters

Stout 1 3/4 inch base supports *twist-lock* fiberglass sections -- telescopes to a massive 31 feet in literally just seconds.

Air-wound high-efficiency loading coil is continuously tapped, 3.5 to 7 MHz. No guess work or ground rods needed, connect 4 insulated 12 foot radial wires at the base of the self-supporting antenna.

Lab rated Guanella balun gives 30-dB common-mode suppression.

Use conductive eyebolt at the top of the antenna mast to install wires for inverted "L" or "T" to enhance low frequency coverage.

Operation on 30/20/15/12/10/6M requires an ATU. 600 Watts PEP on SSB/CW.

MFJ-2980. **Like** MFJ-2982, but covers 40 through 6 Meters, smaller matching box.

MFJ Portable Ground-Coupled Antenna Base

MFJ-1901

A stable way to mount verticals, provides an effective ground. Place base in a desired location, push legs firmly into the ground. Attach radials for improved performance. Easily set-up or take down for stealth operation. Stainless steel 2x2' base has folded and tapered stainless legs on corners. Supports 18 foot verticals. Two u-bolts included plus SO-239 and 3/8-24 threaded connectors.

MFJ-1919. Portable heavy-duty tripod for mounting. Extra-wide base gives full support to 100 lbs.

MFJ Low-Noise Receiving Loops

Work DX and ragchew even through horrendous noise!

Pull weak signals out of static crashes, atmospheric, man-made and power line noise!

Clearly hear signals 50 KHz to 30 MHz you never knew existed. Power line noise and static just disappears.

MFJ-1886 drastically reduces noise and interference by receiving the magnetic field and rejecting the electric field. Rotate MFJ-1886 receiving loop to totally eliminate interfering signals or greatly peak desired signal.

Excellent antenna and preamplifier balance gives deep null.

State-of-the-art push-pull Gali MMICs preamp gives you high dynamic range, low IMD and 25 dB of low noise gain. Gives excellent strong and weak signal performance without overload.

Fully protected preamplifier -- magnetically coupled voltages up to 40V and capacitively coupled voltages up to 20V will not damage preamplifier. Output is protected from transmission line surges induced by distant lightning crashes.

Use anywhere, inside or outside. RF signal and power is sent through your 50 Ohm coax transmission line.

Ruggedly built to withstand extreme weather. 1-inch OD diameter 6061 aluminum tubing. 36-inch diameter. 2½lbs. SO-239. Use masts up to 1 ¾".

MFJ-1886.
Includes receive loop, MFJ-4116 bias-tee to power MFJ-1886 through coax.

MFJ-1886TR.
Includes MFJ-1886 and MFJ-4113TR Bias-Tee/Transmit/Receive switch. MFJ-4113TR powers MFJ-1886 through coax and switches between transmitting antenna and receiving loop. Built specifically for radios with only one antenna connector.

MFJ-4116. Bias-Tee provides RF signal, power thru coax. Up to 1A DC up to 50 Volts.

MFJ-4113TR. Bias-Tee with built-in Trans-mit/Receive switch. Switches between transmitting and receiving antenna. For radios with only one antenna connector. Provides RF signal, power thru coax.

Multi-coupler/Bias-Tee

New!

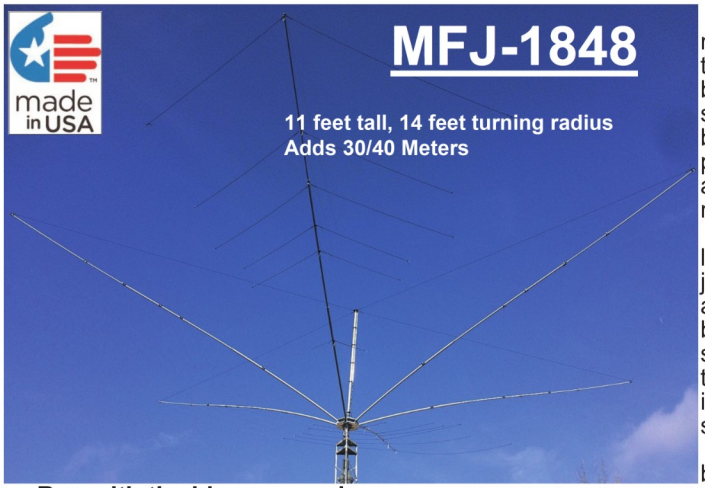
MFJ-1888MC. Connect four receivers to one antenna. Receivers are fully isolated. Each receiver port has 1-12 dB adjustable gain. IP3 is +15 dB. 2dB noise figure. Built-in Bias-Tee powers receiving loop through coax. SO-239s. Use 12 VDC or 110 VAC with MFJ-1312D. Compact 7¼Wx1¾Hx5D inches.

Super High Dynamic Range High Gain Receiving Loop

New! **MFJ-1888.** 32 dB gain from 50 KHz to 30 MHz. 20 dB gain at 80 MHz. IP3 is + 30 dB, 1 dB compression point is 23 dB, noise figure is 1.7 dB. Built-in BCB input filters to reduce overloading. Includes MFJ-1888MC remote multi-coupler. Can be used with MFJ-4113TR Bias-Tee/T/R switch and/or MFJ-4116 bias tee. 36-inch diameter. 2½ lbs. SO-239. Use masts up to 1¾ inches.

MFJ H EXBEAM ANTENNA 2-ELEMENTS PER BAND!

8 BANDS: 40/30/20/17/15/12/10/6M, FULL SIZE ELEMENTS, 1.5 KW+



Run with the big guns and pay far far less!

MFJ-1848 is ***6*** individually stacked monoband yagis -- on a single feedline!

Each yagi is optimized for maximum performance. You'll get the same high gain and nearly equal front-to-back ratio at far, far less than half the price.

Works great as low as 20 feet.

Full size elements, no lossy traps or coils, wide bandwidth and low swr across each band gives best possible performance -- no tuner needed.

Single feedline lets you instantly jump to where the action is on any band! Never switch antennas or tune -- save time, increases contest scores.

QSO on one band and monitor many other bands with multiple receivers or SDRs and a multi-coupler!

It weighs only 30 pounds and has a short 17 foot turning radius.

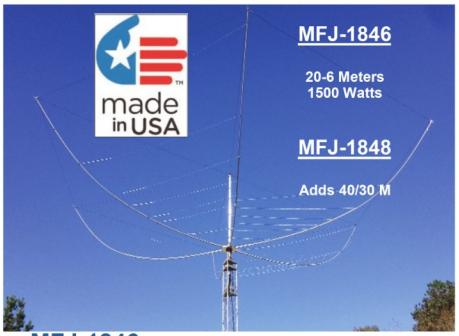
Small windload, light weight and tiny footprint -- turn with *hy-gain's* CD-45II.

Instead of an expensive tower, all you need is a guyed push-up-pole.

Exceptionally strong *symmetrical fiberglass construction* withstands harshest weather. Lessens the effect of rain, wind, snow and ice -- reliable DX.

See *www.mfjenterprises.com* for full performance specifications.

2-Elements per band HexBeam



MFJ-1846.
6 Bands: 20/17/15/12/10/6 Meters, 2-elements per band, full legal limit. 25 lbs. Turning Radius: 11 feet.

MFJ-1848.
8 Bands: 20/17/15/12/10/6 Meters, 2-elements per band; 40/30 Meters are single elements, full legal limit. 28 lbs. Turning Radius: 14 feet.

MFJ 4-Band Octopus Antenna

Choose any 4 bands: HF/VHF/UHF

Octopus antenna hub turns your hamsticks into four fully balanced dipole antennas in minutes!

Mix and match *any* four HF/VHF/UHF bands.

Example: screw-in 80, 40, 20 Meter hamsticks and a dual band 2M/440 MHz whip (two on each band) on opposite sides. Now you have an automatic bandswitching 5-band dipole! Rotate it for maximum signal and minimum QRM and noise with a small rotator like **Hy-Gain AR-500.**

Works at any height, low for local NVIS and high for DX. At a fixed height, (say 20-30 feet) use 80-Meters for NVIS and 20-Meters for low-angle DX.

Mounts on masts up to 1-inch diameter. Just use a fiberglass pole on a tripod and you're on the air!

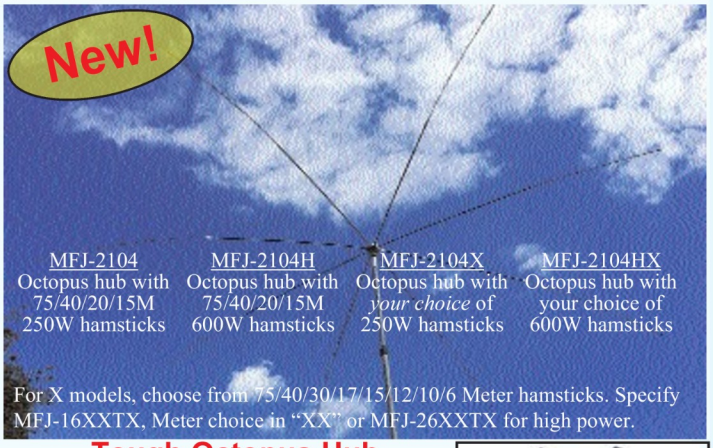
Perfect for casual portable operation, limited space, HOAs, field day, camping, ARES during disasters.

Single coax feed, built-in balun.

Interaction between bands is minimized because the ends are spaced apart at a large angle.

You don't need an antenna tuner if you carefully tune each dipole. An easier way is to just set each dipole approximately on frequency and use an awesome automatic antenna tuner like the MFJ-993B to operate and to widen the bandwidth.

Lightweight, 14-foot diameter. Hamsticks break down to about four feet for easy storage.


New!
MFJ-2104
Octopus hub with 75/40/20/15M 250W hamsticks
MFJ-2104H
Octopus hub with 75/40/20/15M 600W hamsticks
MFJ-2104X
Octopus hub with *your choice* of 250W hamsticks
MFJ-2104HX
Octopus hub with your choice of 600W hamsticks
For X models, choose from 75/40/30/17/15/12/10/6 Meter hamsticks. Specify MFJ-16XXTX, Meter choice in "XX" or MFJ-26XXTX for high power.

Tough Octopus Hub

Eight 3/8-24 threaded connectors for hamsticks. Super strong fiberglass filled ABS base insulator. Your Octopus hub will give you years of trouble-free service!

Super Octopus Deals

MFJ-2104. Octopus Hub and 75/40/20/15 Meter (2 each) 250W sticks. *Saves $20!*

MFJ-2104H. Hub with 75/40/20/15 Meter (2 each) 600W hamsticks. Saves $20!

MFJ QuikStik ™Spike Mount -- *Push into ground, screw on an antenna!*

For hams on-the-go to a next adventure or for those at home needing something QUICK and easy-to-hide!

MFJ's *QuikStik*™ Antenna system consists of a durable 4 ft. 3/8" diameter copper bonded steel earth ground rod, 3/8-24 threaded HF antenna pipe mount with SO-239 for your coax run, and twenty-five feet of counterpoise wire for coupling to the ground rod.

It's super efficient and a very QUICK set-up. Just set the mount, push the rod into the ground, add your antenna, counterpoise, coax and operate!!! Use hamsticks, telescopic 20-6 Meter whips, solid whips, screwdrivers, even motorized screwdriver antennas if you wish.

MFJ-1936T

Copper ground rod is tough and will last for years of service. A pointed end makes it easy to push into the ground. Helps bleed off static and RFI and prevent RF hot spots. A wire coupler is built onto the ground rod, just unscrew and screw back for QUICK wire adjustment.

The mount is tough aircraft quality aluminum and will hold up to a 1" pipe. SO-239 gold-plated connector has lock washer under the 3/8-24 connector.

MFJ includes your 25 ft. coated wire for your counterpoise. All you need to do is add your antenna and coax!!!

Add an Antenna!

MFJ-1936TW. *Saves $10!* *QuikStik*™ antenna system with MFJ-1979 17 foot telescopic whip antenna.

MFJ-1936TWC. *Saves $10!* *QuikStik*™ antenna system with MFJ-1979 17 foot telescopic whip antenna and a 40-6 Meter MFJ-67 loading coil.

MFJ Apartment Antennas . . . indoor or outdoor, windows, balconies . . .

Apartment Window Antenna

Operate 40-10M on HF, 6/2M VHF with a single antenna and 300 Watts! Universal mount/clamp attaches to windows, balconies and railings. Great indoors mounted to a table or bookshelf. It's not a 5-element yagi, but you'll work your share of exciting DX! Highly efficient air wound *"bug catcher"* coil, telescoping 5½' radiator gets out! Includes coax, choke balun, counterpoise wire and safety rope. Frequency is adjusted by moving the "wander lead" on the coil and adjusting the counterpoise for best SWR.

Window Antenna with tuner

Covers 80-6 Meters. Like MFJ-1622 but adds manual tuner. Handles 200W.

MFJ-1623. Like MFJ-1625, but covers 6-30 Meters.

MFJ-63. *High-efficiency* air-wound 80/40M loading coil with 3/8x24.

MFJ-1625

10-40M Portable Antenna

MFJ-1621 operates anywhere -- apartment, campsite, hotel, on the beach. Mounted on a sturdy, 6x3x6" cabinet. Has *built-in* antenna field strength telescoping whip, and 50 foot coax. 200 Watts, 3/8x24 threaded connector and disengages to collapse to 22" for true portability. Place in an electrically clear area, set bandswitch, tune for max field strength and operate!

MFJ-1621

Whip Tuner/Artificial Grnd

MFJ-1644

Add a short whip and counterpoise and get an effective portable 150W 3.5-30 MHz antenna. Get 30-10M with included 12' whip/counterpoise. Add longer wire and external coil for more efficiency especially on 80M. Whips, sticks, Hustlers work great. Sensitivity control lets you use QRP to 150 Watt QRO.

MFJ-1642. Like 1644, less RF *Current Meter.*

MFJ Cobweb Antenna

For restricted spaces, 6-Bands: 20/17/15/12/10/6 Meters...

40-6 Meter Cobweb Super Heavy-Duty , 1.5 kW

***New! Super heavy-duty* 40-6 Meter Cobweb Antenna. Built to survive harsh northern winters, heavy snow, ice and strong winds -- has super-strong large diameter fiberglass and heavy-duty 14 gauge stranded hard copper wire. 8-bands: 40, 30, 20, 17, 15, 12, 10, 6 Meters, 1500 Watts. 12 feet, 23 lbs.**

Restricted space spoiling your operating fun? MFJ Cobweb puts your call back on the map!

This six-band (20, 17, 15, 12, 10, 6 Meters) full half-wave *Cobweb Antenna* is perfect for restricted space or portable operation. Sky-gray fiberglass spreaders and *nearly invisible* wire elements (flat 9x9x1/2 feet square. 8 pounds), blend in with your surroundings while standing tough against nasty weather.

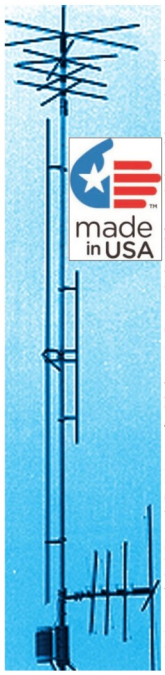
Outstanding performance! Horizontally polarized for less local noise pickup plus solid gain over verticals will allow you to work DX easily -- even on QRP. Omni-directional. No radials needed! Works great at low heights. Low SWR is due to MFJ's exclusive *Spider-Match*™ broadband network. Use lightweight TV hardware to chimney, balcony, mast mount.

Low in cost, BIG on performance. MFJ *Cobweb Antenna* turns your space problem into a huge stacks of QSLs from far away places.

MFJ-1836HK. Converts MFJ-1836 to MFJ-1836H to handle 1500 Watts.

MFJ-1836HK34. Add-on kit adds 40/30 Meters to MFJ-1835/1835H and MFJ-1836/MFJ-1836H cobweb antennas.

1/2-wave, 6-Band no radials Vertical



MFJ-1796 **Only 12 feet high** with tiny 24" footprint! Mount anywhere -- ground level to tower top -- apartments and small lots.

Perfect for field day, DXpeditions, camping.

Efficient end-loading, no lossy traps. Entire length always radiating. Full size 1/2 wave on 2/6M.

High power *air-wound* choke balun eliminates feedline radiation. Adjusting one band has minimum effect on others. 40-20-15-10-6-2 Meters.

Automatic bandswitching, low radiation angle, omni-directional, 1500 W. Goes together in an afternoon.

MFJ-1796W. WARC version for 12/17/30/60M.

MFJ-1792. 80/40M, 33 ft. Requires guying/radials.

MFJ-1793. Like MFJ-1792, but full size 20 Meter 1/4 Wave radiator also. Covers 80-40-20 Meters.

1/2 Wave, 10 Band 80-2M Verticals

MFJ-1799 80-2 Meters

MFJ-1799X 40-2 Meters

Highly efficient end-loading 1/2 Wave vertical covers 10 bands: 75/80, 40, 30, 20, 17, 15, 12, 10, 6 and 2 M.

Requires no radials, no lossy traps. Features efficient end-loading.

Only 20 feet high and has a very manageable 7-foot footprint so you can easily mount it in a small area or patio.

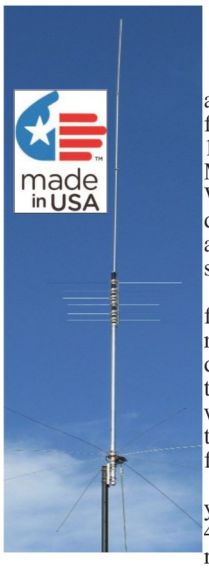
MFJ-1799 is low profile so it can blend in with trees and the sky.

High power air-wound choke balun eliminates feedline radiation. MFJ-1799 features automatic bandswitching, a low radiation angle, omni-directional, 1500W PEP.

Built-to-last. Incred-ibly strong solid fiberglass rod and large diameter 6063 T-6 aircraft strength aluminum tubing are in the main structure. Efficient high-Q coils are wound on tough low loss fiberglass forms with *Teflon*® wire.

MFJ-1799X. Like MFJ-1799, but covers 40-2 Meters.

7-Band SkyMaster 40-10M Verticals



MFJ-1797

MFJ-1797. *SkyMaster*™ vertical antenna covers all your favorite HF bands: 10, 12, 15, 17, 20, 30 and 40 Meters and handles 1000 Watts PEP. It is best these days to be inconspicuous and MFJ gives a super small footprint.

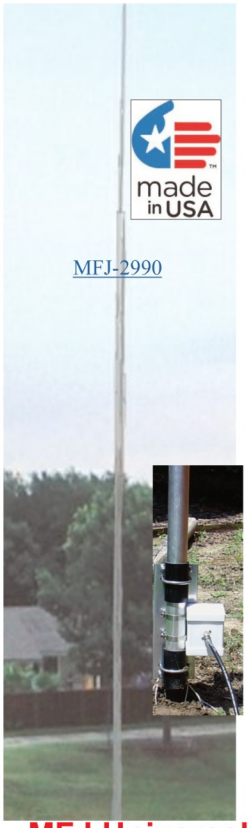
It's the perfect antenna for roof-mounting, ground mounting, off your patio deck, or to blend into the trees. It is super lightweight, just 7.5 lbs. with the whip and only 23.5 feet.

With the 14.5 foot whip you get more efficiency on 40 Meters. No ground or radials are needed. Super low profile without the whip.

Use mast size up to 1 3/4 inches.

MFJ-1797LP. Like MFJ-1797 but without the 14.5 foot whip section. Less efficient and narrow bandwidth on 40M. Weighs 6 pounds, only 9 feet tall for super low profile.

MFJ 160-6 Meter Antenna



MFJ-2990

Operate all bands 160-6 Meters at full 1500 Watt with this self-supporting, 43 feet high performance vertical! Assembles in less than an hour -- low-profile blends in with the sky. Neighbors won't even know it's there!

Entire length radiates to provide exceptional low angle DX performance on 160-20M and very good performance 17-6 Meters. Shorten by telescoping down for more effective low angle radiation on higher bands.

Wide-range autoc or manual tuner *at your rig* easily matches this antenna for 160-6M. No physical tuning adjustments on antenna -- simply put it up!

Optimized balun design allows *direct coax feed* with negligible coax loss (typically less than 1/2 dB from 60 to 6 Meters, less than 1 dB 160-80 Meters with good quality low-loss coax).

With just 2 square feet wind load, the fully self-supporting MFJ-2990 -- *no guy wires needed* -- has the lowest wind-loading and lowest visibility of any vertical antenna! The key is the 6063 Aircraft strength aluminum tubing, it sways and flexes in strong winds instead of stressing the sections. 2-inch O.D. and .120 inch thick walled tubing bottom section makes it incredibly strong -- it'll stay up!

Weighs 20 lbs -- easily put it up by yourself because its corrosion resistant *6063 aircraft aluminum* tubing and stainless steel construction make it light *and* super-strong.

You can easily assemble it in an hour! Ground mounting lets you completely hide its antenna base in shrubbery. Includes ATB-65 high-strength antenna mount. Requires ground system -- at least one radial. More extensive ground system will give much better performance.

This very low-profile antenna is perfect for stealth operation in antenna restricted areas. Hide it behind trees, fences, buildings, bushes. Use it as a flagpole. Telescope it down during the day. Put it up at night and take it down in the morning before the neighbors even notice!

Quick and easy installation makes it great for DXpeditions, field day and other portable operations.

MFJ-2910. 1.5 kW 80/160M high efficiency matching network. High-voltage insulated base tube, remote power injector with switch for 160/80M and off positions. 3Wx16Hx3D inches.

MFJ-2908. Like AV-6110 but handles 600W on 80M, 300W on 160M. 3Wx11Hx3D".

MFJ-2904.160 Meter Tuner Range Extender for 43 foot verticals. 1.5 kW, weather-resistant PVC, ceramic feedthroughs for input/output. 3.5Wx3.5Hx11D inches. Use with MFJ-998RT/MFJ-994BRT.

MFJ-2902. Like MFJ-6104, but 300W. 5-way binding posts for input/output. 3.5Wx3.5Hx7D inches. Use MFJ-926B/927/993BRT or manual tuners.

MFJ Universal Vertical Tilt Base

MFJ-1903

This unique MFJ design allows this tilt base to fit most verticals with or without a base bracket. Pre-punched holes make it easy to mount many types of verticals. Fits Hygain's AV18VS/14VS/18AVQ/680/640/620/AV-6160, Cushcraft R8/R9, MFJ-1796/1798/2990 and others with tube bases, masts to 2 1/4 inches OD. Mount one side of tilt base to the mast and the other to the base. *Raise antenna up/down easily before severe weather by yourself* -- just walk it up or down. Has ground radial holes. Super-strong 1/8" thick aluminum. Includes four 2 1/4 inch U-bolts, four 1 1/2 inch U-bolts, mast saddles, and all stainless steel hardware, nuts/bolts.

MFJ All-band Ground Radial Kit

MFJ-1932

All-band ground radial system kit for the MFJ-2990 and other vertical antennas requiring a radial system. Convenient and effective, it provides the necessary return path for ground currents to reduce ground losses. Consists of 2 sets of 4 radial wire assemblies giving a total of eight 14 foot radial wires. Each has a 1/4" ring lug for attaching to the antenna ground point. Each end of the radial wires has a solder lug for staking the wire end.

MFJ 50-75 Ohm Transformers

Dipoles raised above close proximity to ground *become* 75-Ohm antennas. Tempting as it is to correct this mismatch in the shack with a tuner, why not fix it at the source? These low-cost, no-tune 50-75 Ohm transformers can also be used to match equipment into low-loss 75-Ohm cable-tv coax, or reverse connect them to match 35-Ohm verticals and yagis. 1500 Watts PEP SSB/CW, ICAS 1.8-50 MHz. 100% shielded indoor. Low insertion loss (0.05 dB), large binocular ferrite core, silver plated *Teflon*(R) jacked winding, *Teflon*(R) SO-239s. Weatherproof MFJ-2924R for outdoors.

MFJ-2924M

MFJ-2924P

Stainless Steel Portable Antenna Mounts

MFJ-1912. Put up a 50' antenna mast instantly, anywhere!!! Drive your tire over the base of the MFJ-1912. You're ready to set up your Inverted V, Yagi, or other antenna. Stainless steel portable mount has every conceivable connector on it plus two huge U-bolts to securely hold a mast. Fits 2.25" masts.

MFJ-1914. Stainless steel antenna mast mount system complete with four heavy duty 15-inch galvanized tapered stakes with outer pins for secure ground mounting of your favorite MFJ telescopic masts. It includes two U-bolts that will hold up to 2.25 inch OD masts sturdy. Both work with MFJ-1916 and MFJ-1917 Masts, *plus many more!*

MFJ Ladder Line, Twin Lead, Copper Wire, Installation Rope

A

A. 450 Ohm ladder line. 18# solid copper covered steel, insulated/spaced by heavy black polyethylene. Uniform spacing of conductors insures proper balance for balanced lines dipoles.
MFJ-18H050, 50 Ft.
MFJ-18H100, 100 Ft.
MFJ-18H250, 250 Ft.
***Additional per foot* available.**

B

B. 300 Ohm TV Twin-lead. 20# stranded copper wire, insulated/ spaced by black polyethylene. For dipole, j-ppole, low power uses.
MFJ-18T050, 50 Ft.
MFJ-18T100, 100 Ft.
MFJ-18T250, 250 Ft.
***Additional per foot* available.**

C

C. Copper Antenna Wire.
Flexible 7-strand, 14#, solid-copper wire. Strong, lasts.
MFJ-18G100, 100 Ft.
MFJ-18G250, 250 Ft.
***Additional per foot* available.**

D

D. Nylon or Polyester Rope.
Black nylon (D) or Polyester dacron rope for wire antennas, UV resistant.
MFJ-19A100, 100 Ft.
MFJ-19A250, 250 Ft.
MFJ-19C100, 100 Ft.
MFJ-19C250, 250 Ft.

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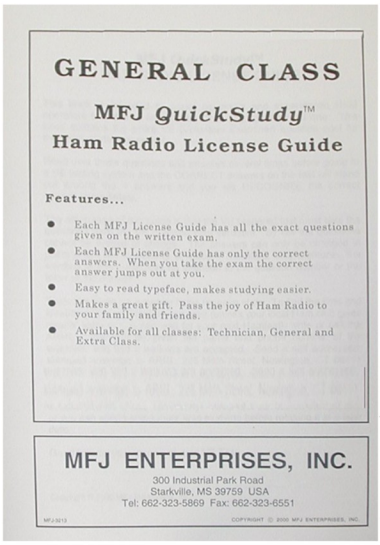
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Each MFJ license guide has all of the exact questions given on the written exam. Each question on the exam has a multiple choice answer. But why take the extra time to study the wrong answers? It'll just add to the confusion and doesn't help you pass the exam. ***MFJ gives you only the correct answers.***

When you take the exam the answer jumps out at you -- no confusion, nothing to clutter the mind. It's an instant correct answer because you only studied the right answer.

Study the material thoroughly a few times, pass the test and enjoy the hobby of ham radio -- it couldn't be simpler.

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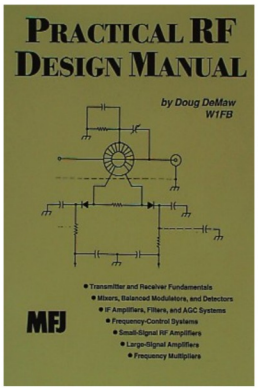
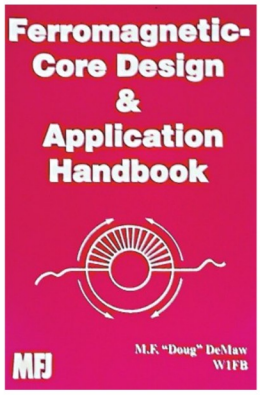
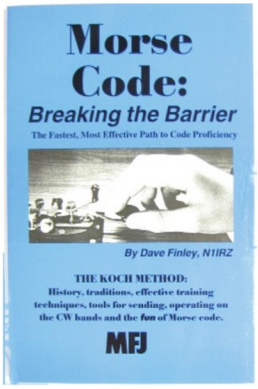
Best Sellers!



MFJ-3507. A classic by Doug DeMaw, W1FB, SK. He gives a wealth of information on electronic circuits, including transmitters and receivers, fundamentals, mixers, and so much more.

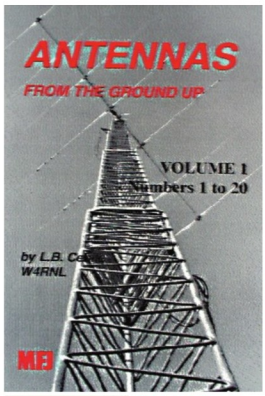


MFJ-3506. The Legendary textbook from Doug DeMaw, W1FB, SK. He emphasizes the practical aspect of ferromagnetic core material.

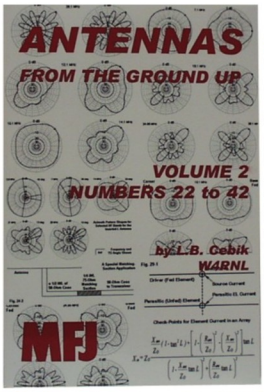

Morse Code:
Breaking the Barrier
The Fastest, Most Effective Path to Code Proficiency
By Dave Finley, N1IRZ
THE KOCH METHOD:
History, traditions, effective training techniques, tools for sending, operating on the CW bands and the fun of Morse code.
MFJ

MFJ-3400. Avid CW enthusiast David Finley, N1IRZ gives the first book to detail the Koch method and training techniques for achieving the fastest code proficiency.

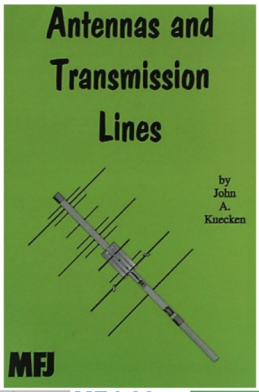
Best Sellers!



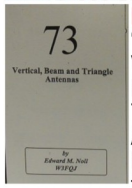
MFJ-3306. Volume I. Practical level *antennas from the ground up by L.B. Cebik, W4RNL.* Concise, clear chapters in Volume one. Everything you need to know about antennas.



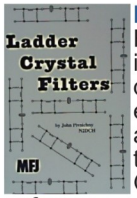
MFJ-3307. Volume II of Cebik's AFTGU picks up where Volume one left off. Has a bunch of All new antenna projects! Never run out of antenna building fun!



MFJ-3305. 320 pages, 37 concise chapters. This great book gives you the underlying theory, powerful antenna building techniques, special antenna building projects and much, much more!

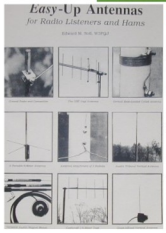


MFJ-3303. "73 Verticals, Beams, and Triangle Antennas". By the famous Ed Noll, W3FQJ (SK).



MFJ-3509. Required in many different electronic applications. Generous references.

MFJ-3302. 73 Dipole & Long Wire Antennas. Ed Noll, W3FQJ classics! Build, test, and play.



MFJ-38. Build fully-tested practical designs. Wires, dipoles, verticals, beams, etc.

MFJ-3501. 30 different electronic kit projects, schematics, part placement. Xceivers, receivers, filters, shortwave, spy, ham toys, most kid friendly, etc.

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MFJ-3502. Solid State QRP Projects. By Ed Noll,W3FQJ.

MFJ-3301. Troubleshooting Antennas and Feedlines. Search it out! Ralph Tyrell, W1TF.

MFJ-3504. FET Principles, Experiments and Projects. By Ed Noll, W3FQJ.

Ameritron 2023 Ham Radio Catalog

600 Watt *solid state 160-6 Meters!*

600 Watt solid state 160-6 Meters Amp . . . Radio automatically switches bands . . . ALS-606S is only 4 dB below 1500 Watts full legal limit -- less than an S-unit!

ALS-606S
with switching power supply

ALS-606
Transformer Power Supply

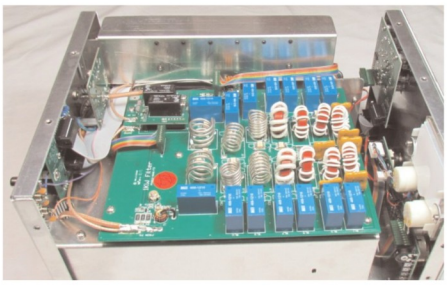
large lighted peak reading Cross-Needle SWR/Wattmeter, front panel ALC control, an operate/standby switch, multimeter and much, much more! ***Call your favorite dealer for a super low price!***

New! **Ameritron's** ALS-606S and ALS-606 *Solid State FET* 600 Watt amplifiers cover 160 through 6 Meters with automatic bandswitching from your transceiver.

Fits on desktop. $9^{3}/4$Wx7Hx$14^{1}/2$D inches and weighs just 14.2 lbs., but is only 4 dB below 1500 Watts -- less than an S-unit! *Nobody can even hear the difference!*

600 Watts PEP and 500 Watts CW -- *be heard, talk to anybody!* No tubes to baby, no tuning, this is solid state rugged -- just turn it on, select your favorite band on your transceiver and sit back, relax and operate.

ALS-606Sand ALS-606 are SWR/thermal protected and extremely quiet. Has



An Inside Peek . . .

Back of ALS-606S.

Just don't take it from us . . . here's what "they" say about our solid state station amplifier:

". . . the ampifier faulted only when it was supposed to. It protected itself from our boneheaded, sleep-deprived band changing . . ."

"I found myself not worrying about damaging this amplifier. It seems quite capable of looking out for itself. . . . Kudos to Ameritron."

"couldn't hear any noise at all from the SPS (*switching power supply*) on vertical or quad . . ."

"I came to greatly appreciate the size, weight, reliability and simplicity of this solid state amplifier."

"The ALS-600S makes it possible to pack a transceiver and a 600 Watt amplifier, that together weigh less than 30 pounds."

All from QST Magazine, 2005.

. . . the World Leaders in High Power Amplifiers and Accessories!

AMERITRON mobile *no tune* Solid State Amp

500 Watts, Instant bandswitching, no tuning, no warm-up, SWR protected, 1.5-22 MHz . . . ARI-500 Amplifier Radio Interface reads transceiver band data -- automatically bandswitches ALS-500M amp . . . ALS-500RC Remote Head gives total remote control!

ALS-500M

Just turn on and operate -- no warm-up, no tuning, instant bandswitching. Compact.

Ameritron's ALS-500M solid state *mobile* amp gives you 500 Watts PEP SSB or 400 Watts CW output! Covers 1.5-22 MHz, (10/12 Meters with MOD-10M, requires FCC license).

Virtually indestructible! *Load Fault Protection* eliminates amplifier damage due to operator error, antenna hitting tree branches, 18-wheeler passing by. *Thermal Overload Protection* disables/bypasses amp if temperature is excessively high. Auto resets.

Typically 60-70 watts in gives full output. ON/OFF switch bypasses amplifier for "barefoot" operation. Extremely quiet fan comes on as needed. Excellent harmonic suppression, push-pull output, DC current meter. 13.8 VDC/80 Amps. Super-compact 3½x9x15 inches. 7 pounds.

ALS-500M. 500 Watt mobile amp.

ALS-500MR. ALS-500M mobile amp ***plus*** ALS-500RC *Remote Head for full manual remote control.*

ARF-500K. Remote kit for older ALS- 500Ms with serial # below 13049. Includes filter/relay board for amp, remote, cables, hardware, instructions.

ARF-500K2. ARF-500K Remote kit for older ALS-500Ms ***plus*** ARI-500 *Amp/Radio Interface.*

ARI-500. *Amplifier Radio Interface* reads band data from your transceiver so you can *automatically bandswitch* your ALS-500M amplifier. *Below.*

Choose ARI-500 for fully *automatic bandswitching* or ALS-500RC for *manual* remote control.

ALS-500RC. *Remote Head* lets you place your ALS-500M or ALS-600 amplifier *out-of-the-way* and gives you full *manual remote control*. Select desired band, turn on/standby and monitor current draw on its DC Current Meter. Power, transmit and overload LEDs. RJ-45 cables plug into Amplifier/ Remote Head. Works with serial numbers above 13049 (below 13049 requires the ARF-500K, above). Compact 4Wx2¾Hx1D inches.

Let your rig *auto bandswitch* your Solid-State Ameritron Amps

Ameritron's ARI-500 *Amplifier Radio Interface* reads band data from your Icom, Yaesu, Kenwood, Elecraft or Alinco rig so you can remotely and automatically band switch your Ameritron Solid State Amps (ALS-500M/ALS-600/ALS-1300).

Now you can mount your amp *out-of-the-way* in your trunk, back of your motorhome or elsewhere and operate with just this tiny box at your station

Works with ALS-500M amplifiers with serial numbers above 13049 (below 13049 requires the ARF-500K factory install kit).

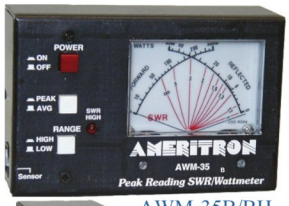
ARI-500

Works with ALS-1300, ALS-600, ALS-600S amplifiers and older ALS-600 and ALS-600S amplifiers with the remote A/B jacks on the front panel.

ARI-500 Prewired Cables

Model #	Transceiver
RJ-13D	Icom 706, 7000, 718
RJ-7DI	Icom ACC2, 7 pin
RJ-DB97DK	Kenwood w/RS232 except TS-480
RJ-DB8MK	Ken TS480 and compatibles
RJ-DB9Y	FT-847 CAT
RJ-8MY	FT-847 Tuner Port
RJ-8MY2	FT-857D, 897D, FT-1000MP
RJ-10MY	Yaesu FT-450/950/1200
RJ-8DY	Yaesu with 8 pin Data
RJ-DB15Y	Yaesu FT-DX3000
RJ-DB15HE	Elecraft (BCD)
RJ-USB6000	RJ45-USB Cable, Flex 6000

Flat Mount Mobile SWR/Wattmeter



AWM-35B/BH

Mount on your dashboard or flat mount on wall/shelf in the shack for best views. Remote sensor, 3½Wx2¾Hx2¾D" with 25' flexible cable. Place sensor/coax out-of-the-way. 1500W, 1.8-60 MHz. LED lighted Cross-Needle meter, 5Wx3¼Hx1⅝". *Active* electronics read *true* peak or average power in two ranges. "High SWR" LED. 9V battery or 12 VDC.

AWM-35B, 300W/3kW ranges.

AWM-35BH, 100W/1000W ranges.

Base Station *1500 Watt* SWR/Wattmeter

AWM-30B

AWM-30B is super-accurate, get precise power readings every time! Designed-in-accuracy is the result of a directional coupler, an accurate *active* peak reading circuit and a precision d'Arsonval meter movement. Reads *true-peak* or average power on a large LED lighted 3" Cross-Needle meter. 1500W, 1.8-60 MHz. 3000/300W ranges. Reads forward/reflected power and SWR on highly visible dual cross-needle meter. Remote sensor with cable. Battery saver turns off with no RF applied. Uses 12 VDC or 9V battery. Compact 4½Wx4½Hx5½D".

Base Operation Power Supply for your ALS-500M Amplifier

SPS-75MV

Ameritron's heavy duty 75 Amp switching power supply is excellent for powering your HF mobile amplifier or your HF/VHF/UHF rigs, accessories.

Great for Ameritron's ALS-500M Solid State HF Amplifier and others with a power requirement of up to 75 Amps.

SPS-75MV delivers 75A maximum and 70 amps continuously without even flexing its muscles. Input voltage selectable for 110 VAC or 220 VAC.

Highly regulated. Load regulation better than 1%. Ripple voltage is less than 12 mV peak-to-peak at rated load.

No RF hash! Ameritron's exclusive *HashFilters*™ Filtering System eliminates RF hash that plagues other manufacturer's switching power supplies.

Fully protected -- SPS-75MV has Short-Circuit, Over-load and Over-Temperature protections. Also has an auto restart after a fault. Has power on and Fault LED indicators.

Front panel adjustable voltage 4.0-16 VDC. Meters with backlight let you monitor voltage and current simultaneously.

Attractive front panel features several options for connecting your gear: One pair of 5-way binding posts, two pair of *Anderson PowerPoles*™ one pair of high-current 5-way binding posts, a cigarette socket for mobile accessories, and two pairs of quick connects.

Whisper quiet fan speed increases as load current increases -- keeps components cool and protected.

An automatic battery charging feature provides charging current of 20 Amps maximum, 5 Amps continuous, and 30 mA trickle charge.

Measures 9¾Wx5½Hx9½D inches. Weighs just 10.5 lbs., so it's still light enough to carry on DXpeditions, camping trips and vacations. No more hauling around big, bulky conventional power supplies that can give you a hernia!

AMERITRON no tune Solid State FET Amplifier

No tuning, no fuss, no worries -- just turn on and operate . . . Incredibly low $1799 includes AC power supply, 600 Watts output, continuous 1.5-22 MHz coverage, instant bandswitching, no warm-up, no tubes to baby, fully SWR protected, extremely quiet, very compact . . .

AMERITRON's revolutionary ALS-600/S are amateur radio's *only* linear amplifiers that use four rugged TMOS RF power FETs -- gives unequaled *no tune* solid state performance.

Get instant bandswitching, no tuning, no warm-up, no fuss! Gives 600 Watts PEP Output power and 500 Watts CW with continuous coverage 1.5 to 22 MHz; 10/12 Meters with easy-to-install optional kit, $39.95 plus shipping. Must present FCC license at time of sale.

SWR Protection prevents amplifier damage if you switch to the wrong band, use the wrong antenna or have a high SWR. Over-power protection enables if forward or reflected power exceeds a safe level. Power is automatically reduced to prevent amplifier damage by controlling ALC to exciter.

The ALS-600 is extremely quiet. A low speed, low volume fan is so quiet you'll hardly know it's there, unlike noisey blowers used in other amplifiers. ALS-600 is a compact 9½Wx6½Hx12D inches -- takes up less space than your rig! Weighs just 12½ lbs.

ALS-600
(Includes AC Power Supply, ALS-600PS)

ALS-600S
(Includes Switching Power Supply, ALS-600SPS)

LED illuminated Cross-Needle SWR/Wattmeter reads SWR, forward and reflected *peak* power simultaneously. An Operate/Standby switch lets you run "barefoot", but you can instantly switch to full power if you need it.

Exclusive AMERITRON feature lets you adjust your output power on the convenient front panel. You also get front panel Transmit, ALC, and SWR LED indicators. A 12 VDC output jack lets you power low current accessories. Enjoy 600W of *no tune* Solid State.

It gets even better than this! Do you want to place even the main ALS-600 amplifier out of the way? Do you want the ALS-600 to change bands automatically when you change bands on your transceiver? You have these options. A pair of RJ45 remote control interface jacks on the amplifier permits it to be controlled either manually by the ALS-500RC Remote Control Head, or automatically by the ARI-500 Automatic Band Switch. Automatic Band Switch reads band data from your transceiver and automatically changes the ALS-600 bands as you change bands on your rig. See more details on page 99.

Heavy Duty Linear Power Supply (included with ALS-600) features: •Massive choke input filter greatly improves voltage regulation and reduces peak AC line current • AMERITRON's *exclusive Multi-Voltage Power Transformer* lets you compensate for stressful high line voltage and performance robbing low line voltage • Step-*Start Inrush Protection*™ stops damaging inrush currents and extends the life of your power supply components • Illuminated Cross-Needle Meter monitors voltage and current of 50 VDC line. • Extremely quiet fan • Very compact 9½Wx6½Hx12D inches -- can be placed conveniently out of the way • Wired for 120 VAC, supplies 50 VDC at 25 Amps to ALS-600 amplifier • Also use on 100-130 VAC and 220-250 VAC, 50/60 Hz • Draws less than 12 Amps at 100 VAC and less than 6 Amps at 230 VAC • Includes prewired cable to plug into ALS-600 amplifier.

Purchase **ALS-600PS** separately.

Switching Power Supply (included with ALS-600S) works with all ALS-600 amplifiers.

Extremely lightweight, just 10 lbs. Superb regulation, very low radiated noise. Measures a compact 9Wx6Hx14½D". Great for portability!

Purchase **ALS-600SPS** separately.

Just don't take it from us . . . here's what "they" say about our solid state station amplifier:

". . . the ampifier faulted only when it was supposed to. It protected itself from our bone-headed, sleep-deprived band changing . . ."

"I found myself not worrying about damaging this amplifier. It seems quite capable of looking out for itself. . . . Kudos to Ameritron."

"couldn't hear any noise at all from the SPS (*switching power supply*)on vertical or quad . . ."

"I came to greatly appreciate the size, weight, reliability and simplicity of this solid state amplifier."

"The ALS-600S makes it possible to pack a transceiver and a 600 Watt amplifier, that together weigh less than 30 pounds."

All from QST Magazine, 2005.

AMERITRON Inrush Current Protector stops damaging inrush current

ICP-120
$119.95 Suggested Retail

Protects your amplifier, tubes and power supply components . . .

When you turn on an amplifier, a massive inrush current gushes in. House lights flicker as you hear a loud "thump" from it. Inrush current stresses all your power supply components. Your cold tube filament suffers abusive thermal shock. Eventually, this massive inrush current will damage your amp.

Step-Start *Inrush Current Protector*™ stops damaging inrush current.

Momentary high-voltage "spikes" in AC line can cause damage to amps. ICP-120/240 has built-in varistors to absorb spikes before they cause damage. Works with nearly all amplifiers.

By starting your amplifier through a high power current limiting resistor and shorting the resistor with a relay, the start-up sequence is easier on tube and power supply. All amplifiers have this critical protection -- now you can add this protection to your amp without complicated wiring -- never remove the cover!

Ameritron **ICP-120, $89.95**. 120 Volt wired amplifiers. Limits current to 12A during heavy draw inrush period, 20A during continuous operating current.

ICP-240, $139.95
For 240 Volt wired amps.

Get power of 2 amplifiers with Ameritron's Splitter/Combiner!

Use ASP-200 and ACB-1000 together for a combined output power of 2 amps!

ASP-200 splits radio's output into 2 outputs to drive 2 amps of equal power.

ACB-1000 combines outputs of two amps for a *combined amplifier output.* Maintains 50 Ohm output for antenna.

Amps of equal power like two ALS-500M or two ALS-600 can be used.

ASP-200, $119.95. Handles power to 200W. SO-239. 4Wx1⅜Hx2¾D"

ACB-1000, $209.95. Handles power to 1.5 kW. SO-239s. 6Wx3x4D".

RF Filter reduces harmonics

ARF-1000
$209.95 Suggested Retail

Use with rigs or amps that are producing unwanted harmonics. Frequency select switches to 1 of 6 different ranges, 1.5-30 MHz. 1000W SSB input power, 600W CW or 400W RTTY. SWR <1.3:1 on all bands. SO-239s. 5½Wx3½Hx9½D in.

AL-811 . . . 600 WATTS . . .

More hams use Ameritron AL-811 amplifiers than any other amplifier in the world . . . The AL-811 has earned a worldwide reputation for legendary quality, flawless performance, proven reliability and superb customer service . . .

AL-811

Ameritron's AL-811 linear amplifier gives you plenty of power to bust through QRM!

Get a quiet desktop linear so compact it'll slide right into your operating position -- you'll hardly know it's there . . . until QRM sets in. And you can conveniently plug it into your nearest 120 VAC outlet -- no special wiring needed.

You get three tough 811A transmitting tubes, extra heavy duty power supply, all HF band coverage, pressurized ventilation, tuned input, dual illuminated meters, adjustable ALC and much more for an incredible $999!

The First 600 Watts makes the difference

The AL-811 gives you 600 Watts PEP output -- that's nearly 2 full S-units over your barefoot rig. That could mean the difference between hearing, *"You're Q-5 armchair copy"* and *"Sorry, can't copy you, too much QRM."*

Don't stand aside while the *big guns* steal your DX. You'll log those stations first.

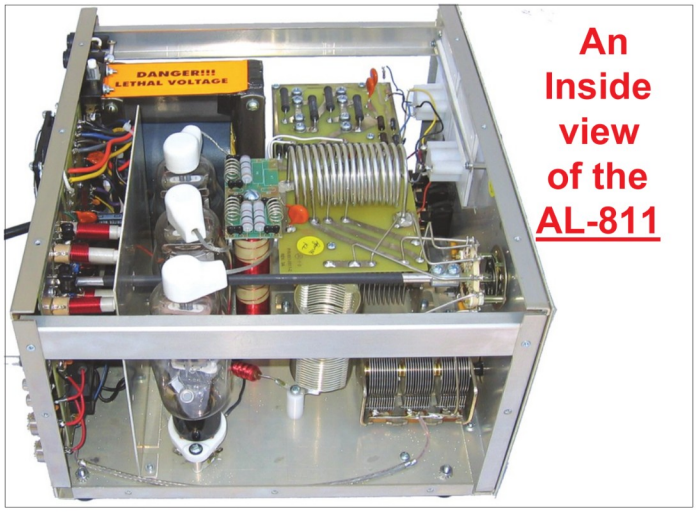
All band, all mode Coverage

AL-811 covers all HF bands. No compromise on WARC and most MARS -- you get a 100% rated output.

Operate AL-811 on all modes. Get 600 Watts output PEP SSB and 500W output CW. Get 300 Watts on continuous carrier modes like RTTY, SSTV, and FM.

The low cost 811A tubes resists failure because . . . **First**, they're constructed with widely spaced elements that minimize the chance of elements touching and causing a short -- even if the plate gets hot enough to melt.

Second, they use a directly heated thoriated tungsten filament cathode that prevents the electron emitting layer from instantly stripping off -- even if a mistune causes severe overload.



An Inside view of the AL-811

The Ameritron AL-811 is excellent for newcomers because it's tough to withstand momentary mistuning. And the tubes are so inexpensive that you can replace one for mere pocket change.

Extra heavy duty power supply gives you peak performance year after year

The heart of the AL-811 power supply is its heavy duty power transformer with a *high silicon steel* core weighing a hefty 17 pounds.

A full wave bridge using 67.5 mfd of total capacitance (four 270 ufd, 450 volt capacitors) produces 1500 Volts under full load and 1700 Volts no load. That's excellent high voltage regulation!

Rectifier diodes are rated for a massive surge current of 200 amps-- won't blow even if you accidentally short the high voltage supply.

Wire wound, 7 Watt, 50 K Ohm equalizing resistors safely protect each filter capacitor -- *not* 2 Watt, 100 K Ohm carbon composition resistors that can open and cause filter capacitors to explode or fail. Ameritron's AL-811power supply is built tough so you get peak performance year after year.

Tuned input provides excellent load for any rig

A Pi-Network tuned input provides a 50 Ohm load for your rig. Even fussy solid state rigs can deliver their full drive to the AL-811.

Low loss slug tuned coils -- tunable from the rear panel -- let you optimize performance. High quality low drift silver mica capacitors maintain proper tuning.

Output tank: Optimum Q on each band

The low loss pi-network output tank has been carefully designed for optimum Q on each band and built with top quality RF components.

The result is peak performance over each band, wide impedance matching range and exceptionally smooth tuning with efficiencies close to 70%. Even a 3:1 SWR load won't damage tubes/tank components.

A ball bearing vernier reduction drive makes plate tuning safe, precise, easy.

A quiet blower pressurizes the cabinet with a large volume of air flow. It keeps the 811A tube temperature *well below* the tube manufacturer's rating -- even with a key down carrier at 400 Watts output -- without the *overwhelming* noise of oversized fans.

Two illuminated LED meters

Two illuminated LED meters give a clear picture of operating conditions so you can tell right away if something is wrong. Long-lasting LEDs.

The Grid Current meter *continuously* checks for improper loading. The other meter switches between high voltage and plate current to warn of abnormal conditions.

Exclusive Adapt-A-Volt™ power transformer

Too high of line voltage stresses components, causes them to wear out and fail. Too low line voltage causes a "soft tube" effect -- low output and signal distortion.

Ameritron's exclusive *Adapt-A-Volt*™ power transformer has a special buck-boost winding that lets you compensate for stressful high line voltage and performance robbing low line voltage. Your amplifier lasts longer and gives peak performance -- regardless of line voltage.

Plus much, much more . . .

An Operate/Standby switch lets you run barefoot, but you can instantly switch to full power if needed. A transmit LED tells you when your rig is keying your AL-811. A 12 VDC keying relay makes it compatible with all solid state and tube rigs.

Back-pulse cancelling diode protects rig keying circuit. Shielded RF cabinet. One year limited warranty.

Compact 16Dx13¾Wx8H". 30 lbs. UPS shippable. Transformer installed, wired for 120 VAC. Draws 8 amps at 120 VAC. Export model is AL-811X wired for 240 VAC.

AMERITRON
116 Willow Road,
Starkville, MS 39759
• Tech: 662-323-8211
• Fax: 662-323-6551
www.ameritron.com

AMERITRON® AL-811H

800 WATTS OUT . . .

AL-811H

made in USA

Only the AMERITRON AL-811H gives you four *fully neutralized* 811A transmitting tubes. You get absolute stability and superb performance on higher bands that can't be matched by un-neutralized tubes.

AMERITRON mounts the 811A tubes vertically -- not horizontally -- to prevent hot tube elements from sagging and shorting out. Others, using potentially damaging horizontal mounting, require hard-to-find 811A tubes to retard harmful sagging and shorting.

Powerful 20 CFM computer grade fan -- not an open frame phonograph motor -- draws in cool air to pressurize the cabinet and efficiently cool your 811A tubes for an extra long life.

You also get efficient full-size heavy duty tank coils, computer grade capacitors, heavy duty high silicon core power transformer, slug tuned input coils, operate/standby switch, transmit LED, ALC, dual meters, QSK compatibility with QSK-5 option and much more!

SPECIFICATIONS:

- **Output power:** 800 Watts PEP, 600 Watts CW.
- **All Band Operation:** Covers 160-15 Meters including WARC bands. Can be user modified for 12 and 10 Meters.
- **Four 811A Tubes:** Uses four rugged, fully neutralized low cost 811A PA tubes.
- **Vertical Tube Mounting:** Prevents shorting of tube filament/grid, prolongs tube life.
- **Fully Neutralized:** Improves stability and performance on higher bands.
- **Input Tune Circuit:** Adjustable rear panel slug tuned input circuit.
- **ALC Control:** Built-in adjustable ALC control.
- **Vernier Reduction Drives:** Tuning and loading reduction drives make tuning smooth and easy.
- **Dual Illuminated LED Meters:** Monitor vital operating functions.
- **Heavy Duty Power Supply:** 17 pounds, high silicone steel core transformer and computer grade filter capacitor gives 1700 Volts high voltage at no load and 1500 Volts at full load.
- **Multi-Voltage Operation:** User select for 100/110/120/210/220/230 VAC operation. Shipped with transformer installed and wired for 120 VAC for domestic model or 240 VAC for export model.
- **Air-Cooled:** Quiet pressurized ventilation keeps tubes safely cooled.

QSK Compatible: Optional external electronic pin diode Transmit/Receive switch. **QSK-5, $599.95.**

- **Attractive Lexan front decal**
- **One Year AMERITRON warranty.**
- **Dimensions:** 8 1/4Hx13 3/4Wx15 1/2D".
- **Operating Weight:** 32 lbs.
- **Made in the USA.**

Get the AL-811HD with 572B tubes . . .

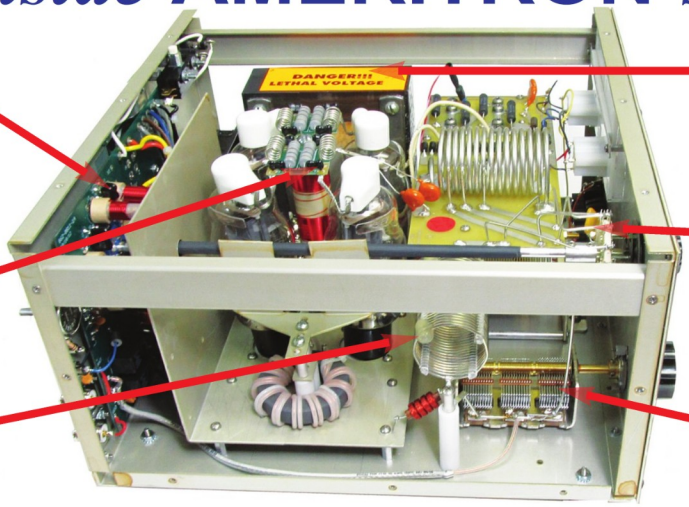
AL-811HD gives you the AL-811H with four 572B tubes installed. Get a higher power tank circuit and grid overload protection. Grid Overload Protection protects the tubes from excessive grid current due to mistuning and it protects against excessive drive power. Four 572B tubes give you more plate dissipation than a single 3-500Z tube. AL-811HD gives you 800 Watts output in SSB and 600 Watts for continuous duty in CW, RTTY, SSTV and AM operation.

A look inside AMERITRON's *AL-811H*

Pi-Network Tuned input provides 50 Ohm load for your rig.

Four fully neutralized and rugged 811A transmitting tubes vertically mounted.

Output tank circuit with optimum "Q" for each band



Heavy duty power supply: 17 lb. high silicone steel transformer and computer grade capacitors.

Heavy duty bandswitch

Pi-network gives smooth tuning and excellent harmonic suppression.

AMERITRON'S four 572B tubes . . . 1300 Watts . . . $2399!

AMERITRON creates a new class of Near Legal Limit™ amplifiers with the AL-572 . . . you get nearly full legal SSB power output for 65% of the price of a full legal limit amplifier . . . No one will ever know the difference!

AL-572

You get 1300 Watts PEP SSB nominal power out on amateur bands 160 through 15 Meters!

Four rugged 572B tubes give you near legal limit power and instant 3-second warm-up time.

This whisper quiet, desktop linear plugs into your nearest 120 VAC outlet -- no special wiring needed.

You get . . . Ameritron's exclusive Instantaneous RF Bias™, Dynamic ALC™, ParasiticKiller™, Step-Start™ Inrush Protection, heavy duty power supply, fully neutralized tubes, Pi/Pi-L network, tuned input, pressurized ventilation, dual LED lighted Cross-Needle meters, multi-voltage power transformer, front panel ALC control, 6:1 vernier reduction drives, and much more!

AL-572 gives 1300 Watts PEP SSB nominal power output on 160-15 Meters using 4 rugged 572B tubes with 3-second warm-up. This whisper quiet, desktop linear plugs into your 120 VAC outlet - no special wiring needed.

Get a heavy duty power supply, fully neutralized tubes, pressurized ventilation, multi-voltage transformer, ALC control, 6:1 vernier drives ... and more!

Get 1300 Watts PEP SSB, 1000 Watts CW continuous (typical) on all amateur bands from 160-15 Meters

Exclusive *Instantaneous RF Bias*™ completely turns off the 572B tubes between words and dots and dashes, for cooler operation and longer component life, while *Dynamic ALC*™ can more than double your average SSB power output.

AMERITRON's *Step-Start*™ Inrush Protection limits inrush current to your power supply and tube filament, greatly extending tube and amplifier lifetime.

Heavy duty power supply uses a high silicon steel transformer to deliver 2500 Volts at 0.7A, good regulation.

Pi-Network tuned input uses slug tuned coils to provide a good 50 ohm load for your rig. Quiet internal fan draws in cool air over power supply components and pressurizes the tubes.

Grid current, plate current and forward PEP output power are continuously monitored by large dual, lighted cross-needle meters.

Fourth scale switches among peak reflected power (and SWR), high voltage, ALC threshold, and output voltage.

Multi-voltage power transformer has a unique buck-boost winding. It lets you select from 14 primary voltages centered on 115 and 230 VAC.

You can match your AL-572 to your AC line voltage so you'll get peak performance and long component life -- regardless of your line voltage.

An Operate/Standby switch lets you run barefoot, but you can instantly switch to full power if you need it. Transmit LED: 12 VDC. 200 mA accessory jack; 12 VDC keying relay for solid state/tube rigs; tough, nearly indestructable Lexan-over-aluminum front panel. Shipped with transformer installed. Draws 16 A at 120 VAC.

Optional Ameritron electronic PIN diode QSK switch for lightning fast QSK operation. Shipped wired for 120 VAC. Weighs 40 lb. Power required: 120 VAC, 16 amps. **Made in the USA.**

Inside view of AL-572

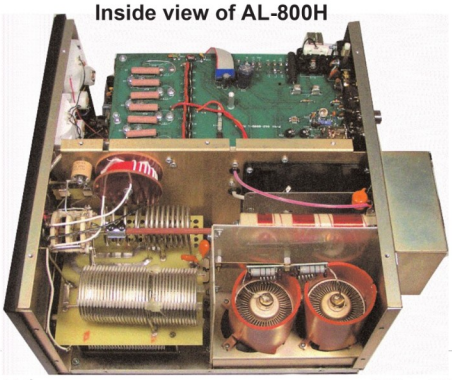
AMERITRON AL-800/AL-800H HF Linear Amplifiers: High POWER in a Compact, Desktop Package

Select the 1250 Watt PEP AL-800 single 3CX800A7 near-legal-limit amplifier, or the 1500 Watt PEP dual 3CX800A7 amplifier that loafs along at full legal limit -- and don't worry about desk space.

AL-800 One *Eimac*(R) tube

AL-800H Two Eimac(R) tubes

Inside view of AL-800H



Compact AL-800/AL-800H amps are both desktop linears with plenty of muscle!

At 14.25Wx8.5H x14.5D inches, the more compact AL-800 uses a single 3CX800A7 to provide 1250 Watts PEP SSB and 850W CW with 85W typical drive level.

And the AL-800 will even run from a 20-Amp 120 VAC line source if desired. AL-800 typically draws 17 Amps peak current at 120VAC, or 8 Amps at 240 VAC and weighs 51 lbs.

For more power and headroom, the AL-800H uses a pair of 3CX800A7 tubes to easily provide 1500W PEP/CW with a typical drive level of 55 Watts.

AL-800H draws 14 Amps peak current at 240 VAC (1500 Watts CW output) and weighs just 52 lbs. Other than power differences, these amplifiers are very similar in features and operation. Both cover 160-15 Meters, and modifiable to cover 12/10M with proof of your FCC license.

Both include a *Step-Start*™ input power circuit, a time delay circuit to allow for tube warm-up, thermal overload protection, grid current limiting to protect your tube(s), a *DynamicBias*™ circuit and a built-in multi-voltage (14 user-selectable AC line voltages from 90-140; 200-250 VAC) heavy duty power transformer. Hefty 32 lb. grain orientated silicone steel core transformer.

Front panel monitoring and tuning functions are also virtually identical. Both amplifiers include a Standby/Operate switch for barefoot or full power operation, an ALC SET control, Transmit and Fault LEDs.

Dual LED illuminated Cross-Needle meters provide detailed monitoring. Meters continuously measure grid and plate currents, and measures peak RF output power on one scale, and plate voltage, Reflected power and SWR, ALC voltage, and ALC adjustment set.

Quiet pressurized ventilation keeps tubes safely cooled. **A** Pi/Pi-L output network gives you smooth tuning and wide matching range. Vernier reduction drives make tuning and loading adjustments smooth and easy.

AMERITRON Doubles Average SSB Power

AL-80B kilowatt output desktop linear can double your average SSB power output with high-level RF processing...runs cooler because its 3-500G tube completely turns off between words

Ameritron's AL-80B kW output desktop doubles average SSB power output with high-level RF processing using our exclusive *Dynamic ALC*™.

AL-80B

made in USA

Get cooler operation! Our exclusive *Instantaneous RF Bias*™ completely turns off the 3-500G tube between words. Saves 100s of watts wasted as heat.

Get a full kW PEP output from a whisper quiet desktop linear. It's a compact 8½Hx14Dx15½" and plugs into your nearest 120 VAC outlet. Covers 160-15 Meters, including WARC and MARS (10/12 Meters modifiable; FCC license required).

Get 800 watts output on CW, 500 watts output on RTTY, an extra heavy duty power supply, genuine 3-500G tube, nearly 70% efficiency, tuned input, Pi/Pi-L output, inrush current protection, multi-voltage transformer, dual cross-needle meters, QSK compatability, two-year warranty, made in the USA, plus more!

Dynamic ALC™ doubles average SSB power

Exclusive *Dynamic ALC*™ gives high-level low-distortion RF processing. More than doubles average SSB power for up to 6 dB improvement in intelligibility, maximizing power without distortion.

A convenient front panel control lets you adjust output power level.

AL-80B's exclusive *Instantaneous RFbias*™ turns off the classic 3-500G tube (except filaments) between words and dots and dashes, eliminating hundreds of watts wasted as heat for cooler operation and longer component life.

The guts of AL-80B is its heavy duty power supply. 26 lb. transformer uses a high silicone steel core, computer grade capacitors, heavy duty bleeders and ten 3A, 1000V power rectifiers give a stiff 2700V fully loaded. Many amps using *two* 3-500Gs use small supplies that deliver barely more power than AL-80B.

The AL-80B is built on a rugged steel chassis with a separate fully-shielded RF compartment to minimize RFI and TVI.

Whisper quiet internal fan draws in cool air over power components and pressurizes the 3-500G tube compartment to remove heat for longest life.

Tuned input lets your rig deliver full output

50 Ohm broadband Pi-Network tuned input is used. Even fussy solid state transmitters will deliver full power!

Carefully designed Pi/ Pi-L output network use the optimum Q for each band to give exceptionally smooth tuning, wide match range, full band coverage, peak performance at all levels.

Step-Start *Inrush Protection*™ stops damaging inrush current with a start up sequence that's easy on your tube and power supply parts.

Exclusive *Multi-Voltage Power Trans-former*™ lets you optimize for 14 different primary line voltages. High voltage secondary can be wired to reduce plate voltage for operation below 400W outside the USA.

Ameritron's dual LED illuminated cross-needle meters give you four separate meters to monitor your operating conditions -- you can tell right away if something is wrong.

Grid and plate current, forward output power are monitored for improper loading and abnormal operating conditions.

The fourth meter can be switched to monitor your 3-500G tube DC plate voltage, reflected PEP power, antenna system SWR, ALC voltage to your transceiver, and the grid current that starts ALC action -- get a clear picture of your AL-80B's overall performance.

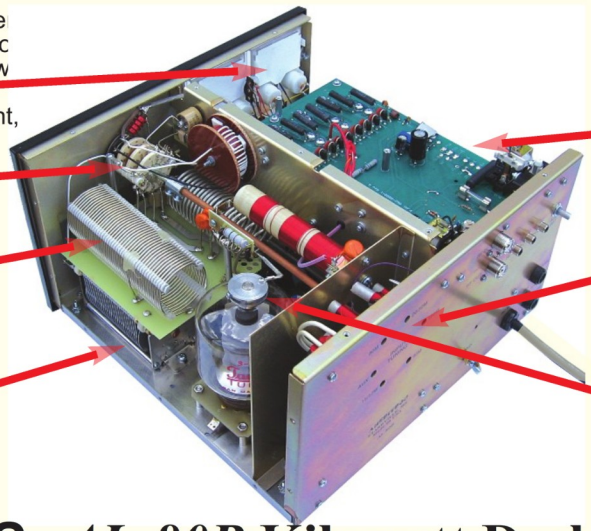
The T/R (transmit/ receive) relay in the AL-80B switches nearly as fast as some vacuum relay QSK T/R switches.

Operate/Standby switch lets you run barefoot, but can instantly switch to full power if needed.

Has transmit LED; 12 VDC, 200 mA accessory jack; 12 VDC keying relay for solid state and tube type transceivers; tough Lexan over-aluminum front panel. Ameritron Two-year warranty.

Weighs 48 lb. Power required: 120 VAC, 12A. Made in the U.S.A.

An inside look at AMERITRON'S *AL-80B*



AMERITRON'S *AL-80B* Kilowatt Desktop Linear

SPECIFICATIONS:

Frequency Coverage: 1.8, 3.5,7, 14, 21 MHz and WARC bands. Export/User modified models include 10/12 Meters.
Input Circuit: Adjustable Pi-Network, VSWR 1.3:1 or less at resonance.
Output Circuit: Pi-L/Pi-Network.
Input Bandwidth: 20% for 2:1 VSWR or better.
Drive Requirement: 85W for 800W CW output. 10 dB gain.
Shipping Weight: Amplifier, 54 pounds.; tube, 3 pounds.
Operating Weight: 48 pounds.
Efficiency: CW/SSB better than 66%.
Dimensions: 14Wx8½Hx15¼D inches.

AMERITRON super legal limit amplifiers

Ameritron's AL-1500 Amplifier with Eimac (R) 3CX1500A7

Feel the need for maximum legal HF output power? AL-1500 will give it to you!

Using the *Herculean 3CX1500A/8877* ceramic tube with its high power gain, the AL-1500 needs only 65 watts of drive from your exciter to deliver the goods-- transceivers and other exciters just loaf at 1500 watts out.

Cool, efficient operation is provided by a forced-air system with tube chimney, using a commercial grade die-cast ball bearing blower for maximum tube life. Tube further protected by delay starting and auto over-current shutoff to remove power if amplifier is mis-tuned.

Get full legal power from a whisper quiet desktop linear. 17Wx10Hx18½D", covers all bands, 160-15 Meters, including WARC and MARS (80% of full output set to nearest amateur band). 10/12 Meters modifiable w/ FCC license.

Get 1500W output (1/2 hour continuous carrier) and 2500W (30 second continuous carrier and 2500W - plus 30 minute PEP two-tone test). Get this plus, 65% efficiency, pi-network tuned input, Pi/Pi-L output, inrush current protection, multi-voltage

AL-1500F *Import* tube

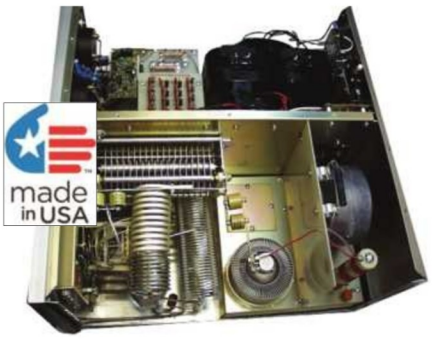
AL-1500 *Eimac*(R) tube

transformer, QSK option, and 1 year warranty.

AL-1500 has a heavy duty power supply. 32 lb. *Hypersil*(R) transformer with high silicone steel core, computer grade capacitors (33 mfd total), heavy duty bleeders and twenty 3A, 1000V power rectifiers give a stiff 3300V fully loaded.

AL-1500 is built on a rugged steel chassis with a separate RF compartment fully shielded to keep RF from leaking out, keeping RFI and TVI to a minimum.

Superb RF design and layout, Hi-Q



An inside look at the AMERITRON AL-1500

tank circuit and commercially rated RF power components give you 65% plate efficiency over the entire operating range. Power goes into the antenna instead of into heat.

50-ohm broadband Pi-Network tuned in-put with slug-tuned coils is used. Even fussy solid state transmitters deliver full power!

A carefully designed Pi/Pi-L output network using the optimum Q for each band with vernier ball drives gives smooth tuning, wide matching range, full band coverage, and peak performance at all power levels.

AL-1500s grid overload circuit protects tube from excessive grid current. If 175 mA of peak grid current is reached, "OPR" LED will not light and amplifier will go into a bypass until reset by the op.

Transformer provides many options

Since excessive line voltage stresses components (low line voltage causes a "soft tube" effect, for example), our exclusive *Multi-Voltage Power Transformer*™ lets you optimize for different line voltages. Select from 4 different primary voltage ranges, from 205-219 VAC to 252 to 265 VAC. The amplifier comes wired from the factory for 240 VAC.

Two *illuminated* panel meters. Grid Current meter provides continuous reading of critical grid current and indicates proper, safe operation.

The other meter reads Plate Voltage, Current, Peak RF Watts, or ALC. Selector switch chooses bias voltage for best linearity on SSB or lowest dissipation on CW. Operate/Standby switch, in *Standby*, maintains the tube's filament and plate voltages while allowing for "barefoot" operation.

Includes 12 volt DC auxiliary jack and an "XMT" LED. **Power required:** 240 VAC, 15 Amps. **Size:** 17Wx10Hx 18½D". 77 pounds. UPS shippable, three boxes.

Made in the USA.

Hypersil(R) *Transformer weighs 32 lbs.*

Slug Core Tuning Tool 965-6204. Plastic tuning stick for adjusting slug cores. .1" hex end, 7 ¼" long. Fits Ameritron tube amplifier coils.

Ameritron's 3CX1200Z7 Amplifier

AL-1200

Radio's toughest tube -- *Eimac*(R) 3CX1200Z7 is in the toughest amplifier! Has 50-Watt control grid dissipation. It also has the same super heavy duty power supply that's in our AL-1500 amplifier that loafs at full power. The tough 3CX1200Z7 has lowest quantity history of field replacement of any modern transmitting tube. It has the ruggedness and power handling of ceramic tubes combined wit the long-life of thoriated tungsten filaments.

Ameritron's Dual 3-500G Amplifier

AL-82

This *classic linear* gives you full legal output using a pair of 3-500G graphite tubes. Examine the features and component ratings of the AL-82 and compare it to any competing amplifier. Most competing amplifiers using 3-500Gs can't deliver 1500W because their lightweight supplies can't use these tubes to their full potential. AL-82 amplifier uses the same *Hypersil*(R) *power transformer* used in the AL-1500/AL-1200 amplifiers -- *powerful, just loafs at full power!*

Rig Output Power Control

TPC-150

For rigs without output control. Drive amp or tune a tuner. Avoid over-driving amps/tuners. Use any rig/amp combo with external ALC. Front panel transmit, ALC control, in/out phone jacks for CW, Amp Key, ALC. 110 VAC. 5¼Wx2¼Hx3½".

Add-on Electronic Bias for AL-82/1200/1500

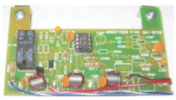
Reduces heat by lessening quiescent current to low values when exciter output falls below 100 mW. Remote detector board for Ameritron.

EBS-1H, for other brand amplifiers. Call 662-323-8211 for more details.

EBS-1

Grid Overload Protect

Protects amp's tube from excessive grid current. Fast-acting electronic circuit rapidly disables the amp if excessive grid current condition occurs. Easy to install in your Ameritron amp. Factory installation, 662-323-8211.



GOP-100

AMERITRON *Amplifier-to-Transceiver* Interface

Protects expensive radio from damage by keying line transients and steady state current and voltages

ARB-704
INTERFACE BUFFER

ARB-704I2 for IC-706 series radios
(Includes PNP-13D)

ARB-704 advanced interface is compatible with all radios and amplifiers even though radios and amplifiers do not have standardized voltages, accessory plugs, or wiring. Works with any amplifier/transceiver combination.

It is compatible with any transmitter, and the output is compatible with AC control lines or DC positive or negative amplifier control lines having up to 200 Volts peak open circuit voltage and 300 mA of operating current.

Amplifiers can damage radios if they have too much relay control voltage, voltage spikes, or excessive current on the relay control line. Such damage often appears as "stuck" or "sticky" transmit relays in exciters or shorted transistors on transmit control lines. Prevents receive from coming through the amp at normal levels in "ON"/"OPERATE" position.

Works with any relay voltage (AC, positive, or negative) to 200 peak volts and any relay current up to 300 mA. Fully compatible with conventional amplifier relays. Especially suited for buffering vacuum relay QSK amps, since the it does not affect attack or release times in a deleterious manner.

Compact 4¼Wx1¾Hx2¾D".

Model#	Transceivers
PNP-8D	FT-1000/2000,(MP), 767GX,920,990,747GX
PNP-8M	FT-890, 840, 817, 857, 897, 900
PNP-35	FT-100, (D)
PNP-5M	FT-847
PNP-10MY	FT-450/950/1200
PNP-DB15Y	FTDX-3000
PNP-5D	FT-980
PNP-7D	TS-440, 690, 450, 180, 140, 950, 130, 870, 2000, 120, 530, 430, 830, 850, 940, 570, 990
PNP-7DK	TS-930 (serial numbers lower than 309)
PNP-8MK	TS-480
PNP-8DI	ICOM ACC JACK
PNP-7DI	ICOM ACC 2 JACK
PNP-13D	All models of the IC-706 series, 718, 7000
PNP-8DT	TENTEC 599 Eagle

A plug-and-play cable is not needed if your radio is not listed.

AMERITRON QSK-5 High Power High Speed Transmit/Receive Switch

QSK-5

Transmit/ Receive Switch uses electronic PIN diode switching to give you lightning fast QSK operation from any HF linear amplifier. Use amplifier for high power QSK CW, packet, AMTOR, any mode requiring fast switching between transmit/ receive.

Just plug in a few cables to start enjoying QSK -- no complicated wiring.

Exclusive *AmpSaver*™ completely turns off your power amplifier tube current between dots, dashes and words! Eliminates unwanted power dissipation that causes damaging heat. Your amplifier runs cooler so every component in your amplifier lasts longer.

Our exclusive *SureSwitch*™ handshaking prevents "hot switching" RF power. Prevents TVI, RFI, key clicks and possible damage to your amp.

QSK-5 is six times faster than a typical mechanical vacuum relay "QSK" switch that can just barely keep up with QSK transceivers. As radios get faster and better, mechanical switching just won't be able to switch fast enough.

2500 Watts PEP, 2000W CW in normal service, SWR below 1.5:1. 750W on continuous carrier modes: RTTY, SSTV, FM. Use with positive voltage keying to +25V. 9½Wx4Hx6D".

Internal QSK Available for AL-80B, AL-1500, AL-1200, AL-82, AL-800/AL-800H. *Ameritron installs.*

Transceiver Front-end Protector

TRP-150 protects your receiver front-end from high level RF signals. Use for added safety when operating in a multi-station environment. Close proximity of a high power transmitter on one antenna can result in potential damage to a receiver. Protect the rig during receive and auto bypass during transmit. Requires 12VDC.
2¼Wx2½Hx1¼D".

ATP-102 Tunes up your linear amplifier perfectly!

ATP-102

Safely tune up your linear amp *perfectly* for full power and best linearity. Deluxe tuning pulser has *Duty Cycle* and *Pulse Rate* Controls for easy testing of Wattmeters, QSK, etc. Protects expensive amplifier from overheating, tube damage, supply stress and arc-over during tune-up. Prevents premature failure and costly repair components.

"Sniff-out" RFI or TVI caused by rusty guys, gutters, clotheslines and others by generating *full peak power* without amp damage.

Set and forget internal trimpots tailor duty cycle and pulse rate precisely.

Locking Pulse Tune and momentary Carrier Tune buttons. Fully shielded , 3¼Wx1¼Hx4D". Use 9V battery.

ATP-100. Like ATP-102, but less Duty Cycle/Pulse Rate controls.

Truly Automatic Ameritron Screwdriver Controllers

SDC-105 works with rigs 160-6M! No interface cables are needed! RF sensor reads frequency data from your rig and moves your screwdriver antenna to the nearest programmed setting. 8 settings per band. Tune command will tune your antenna automatically to the lowest VSWR. Brilliant green LCD shows frequency, VSWR, count and motor current. Manual up/downs can be used for fine tuning. 2-speed control: Use high for adjustments, low for fine tuning. Home mode allows *hands-free* lowering of antenna. Adjustable current limit prevents motor damage or improper stall-outs. 3½Wx3¼Hx1¼D".

SDC-102 is the most popular screwdriver controller. Save *10* screwdriver antenna positions in memory. A push of a button makes your antenna return to any *saved* position. Up/Down buttons. 4-digit turns counter, bright LEDs give precise positioning. 3½Wx3¼Hx1¼D".

SDC-104 K, I, Y is for rigs equipped with a CI-V interface. Receives frequency data from Icom, Kenwood, or Yaesu transceiver and *automatically* tunes your screwdriver antenna to the desired band. This package includes the transceiver interface cable. 3½Wx3¼Hx1¼D". SDC-104I, Icom, SDC-104K, Kenwood and SDC-104Y for Yaesu.

SDC-100B is a 4-digit *super bright* LED controller that tells exactly where your antenna is postioned! Re-tune *exactly* -- fast, no guessing. Digital count range -999 to +999. On/off/reset switch for easy calibration. 4Wx1½Hx2D".

SRS-100. Magnetic sensor kit for High Sierra to use SDC-100/102/104. Not compatible with High Sierra *Sidekick*™.

SRS-1001. Mag sensor kit for Hi-Q antennas to use SDC-100/102/104.

Ameritron Mobile Installation Accessories

A. B. C. D.

A. MIA-1. In-line Fuse Holder/Distribution Block. 80A, 4-10 gauge wire, built-in bracket.

B. MIA-2.AGU *in-line* fused power distribution block has 1 input for 4# wire, 2 outputs for 8# wire.

C. MIA-3, Remote Power On/OFF. 12 VDC Bosch relay. Turns amplifier high current DC supply line ON/OFF remotely with vehicle ignition switch. 75A.

D. MIA-4. Battery Post Break-out Block. 4 AWG terminal for your auto battery and two 8 AWG connections for amp.

E. MIA-5. Braided Ground Strips, solid grounding for mobile radio or screw-driver . Ultra-fine tinned copper braid is extremely flexible. 7/8Wx13D". 3/8" holes each end.

E.

F. MIA-6. ALS-500M DC Power Wire Harness. Assembled 8 foot cable, fuses and fuse holders included.

F.

AL-811/AL-811H Specifications:

Input:
Circuit type: Pi-network, slug tuned coils.
Maximum VSWR at resonance: 1.3:1
Minimum 2:1 VSWR bandwidth: 15%.
Max. drive power permissable: AL-811: 80 Watts; AL-811H: 100 Watts.
Typical drive rated output: AL-811: 60 Watts; AL-811H: 75 Watts
Output:
Typical SSB PEP voice operation: AL-811: 600 Watts, AL-811H: 800 Watts.
Typical CW operation: AL-811: 400 Watts; AL-811H: 600 Watts.
1/2 hour PEP two tone test: AL-811: 500 Watts; AL-811H: 650 Watts.
1/2 hour continuous carrier (RTTY): AL-811: 300 Watts input; AL-811H: 400 Watts input.
Power Supply:
Circuit type: full wave bridge.
No load voltage: 1700 Volts.
Full load voltage: 1500 Volts.
Full load current: AL-811: 550 mA; AL-811H: 650 mA.
Regulation: 10%.
Maximum draw at rated output: AL-811: 8 A; AL-811H: 10A.
AC Input: 120 V, 50/60 Hz (AL-811/H) 240 V, 50/60 Hz (AL-811X/AL-811HX).
Tubes:
Type: (AL-811: 3) (AL-811H: 4) 811A vertically mounted.
Continuous dissipation: 65 Watts per tube.
Warm-up time:
5 seconds
Metering:
Multimeter: reads HV and plate current.
Grid Meter: Reads PA grid current
ALC:
Negative going, 0-20 V, adjustable, phono jack
***Efficiency SSB (envelope crest):** greater than 70%
MARS/WARC:
Yes, set to the nearest band.
Connectors:
Relay: engages amplifier when grounded. +12 VDC open circuit and supplies 100 mA when grounded. A built-in back-pulse cancelling diode protects the exciter.
RF input:
SO-239, 50 Ohm input.
RF Out:
50 Ohms with full power into any SWR below 3:1.
Power:
NEMA 5-15P, 120 Volts.
Dimensions:
15 1/2Dx13 3/4Wx8 1/4H inches.
Operating Weight:
32 pounds.
Shipping Weight:
41 pounds.
Frequency Coverage:
Domestic model: 160, 80, 40, 30, 20, 17, 15 Meters. 10/12 Meters with modification. Must present FCC license at time of sale to obtain modification details.
Third Order IMD at Rated Output: -33 dB.

AL-800/AL-800H Specifications:

Input:
Circuit type: Pi-network, resistor attenuated/slug tuned coils.
Maximum VSWR at resonance: 1.3:1 or less.
Minimum 2:1 VSWR bandwidth: within +20% or -40% of selected band/ within 20% of center frequency.
Max. drive power permissable: 100 Watts.
Typical drive for full power output: 70/55Watts.
Output: Circuit type Pi/Pi-network output.
Typical SSB PEP voice operation: 1250/1500+W
Typical CW continuous operation: 1000/1500 W.
1/2 hour PEP two tone test: 1000/1500 Watts.
1/2 hour continuous carrier (RTTY): 750/1000 W.
Power Supply: Circuit type: Full wave voltage doubler.
No load voltage: 2600 Volts.
Full load voltage: 2300/2250 V.
Full load current: 1/1.2 A.
Regulation: 12%/less/15%.
Transformer: 32 lbs grain oriented El lamination.
Capacitors: 78/63 uFd total, high current computer grade.
Maximum draw at rated output: 12/13A@240 VAC. Typical line current at 1500 Watt PEP output. 9A at 240 VAC. Power line current in standby: .5 A at 240 VAC.
AC Input: 120V, 50/60 Hz.
Tubes: *Eimac*® 3CX800A7.
Continuous dissipation: 800W per tube, 1600W total.
Warm-up time: 180 seconds.
Estimated life: 6,000-8,000 hours ICAS.
Metering: *Multimeter:* reads *Peak* forward power, *Peak* reflected power, SWR, ALC threshold output voltage, and high voltage.
Current Meter: Reads plate and grid current.
ALC: Negative going, 0-10 V, phono jack output, front panel adjustments.
Efficiency CW: Approximately 65-66% or greater.
Eff. SSB (envelope crest): Approx. 66% or greater.
MARS/WARC: Yes, set to the nearest band.
Connectors:
Keying: Requires contact closure or sink of +12 VDC at 100 mA, back pulse protected, phono jack.
RF input:
SO-239, 50 Ohm input.
RF Out:
50 Ohms with full power into any SWR below 3:1.
Power: NEMA 5-15P, 120/240 Volts.
Dimensions:
17 1/4Dx14 1/2Wx8 1/2H in.
Operating Weight: 51/52 lbs.
Shipping Weight: Unit, 59/60 lbs,; Tubes, 3/5 lbs.
Frequency Coverage:
Domestic model: 160, 80, 40, 30, 20, 17, 15 Meters. 10/12 Meters with modification. Must present FCC license.
Third Order IMD at Rated Output: -35 dB.

ALS-500M Specifications:

Frequency Coverage:
(US) 1.5 to 22 MHz continuous; **(Export)** 1.5-30 MHz continuous.
Input: Circuit type:
Broadband, resistor swamped.
Maximum VSWR at resonance: 1.5:1.
Bandwidth: Broadband.
Maximum drive power permissible: 100 Watts.
Typical drive for rated output: 60 Watts.
Output: Circuit: Broadband, low pass.
Typical SSB PEP voice operation: 500 Watts PEP.
Typical CW operation: 400 Watts.
Power requirement for amplifier:
14-16 VDC, 80A (peak).
Output devices:
Transistor, (4) 2SC2879.
Metering:
Current meter, 0-100 A.
ALC: None.
Efficiency CW: 40%.
Efficiency SSB: (envelope crest) 45%.
MARS/WARC: Yes, continuous coverage.
Keying: Relay closure or sinking to ground of +12 VDC at 100 mA, RCA phono jack.
Power Supply connector: Beau multi-contact male chassis mount.
Power Supply Cable: 8 foot pre-wired with Beau connector on one end; other end with 5/8 inch ring lugs, 10 gauge wire (x2), in line fuse holders, fuses included.
RF Connectors:
SO-239 for input and output.
Dimensions:
15 1/2Dx8 7/8Wx3 3/4H in.
Operating Weight:
7.5 lbs.
Shipping Weight:
12 lbs.
Third Order IMD at rated Output:
-35 dB PEP or better.

ALS-600SPS Switching Power Supply Specs:

Line Input:
120 VAC/240 VAC.
Output: 50 VDC, 25 Amps, +/-14 VDC, 1 A.
Metering:
Cross-needle for volt/amp.
Output Cable:
6 foot prewired cable with Beau multi-contact connector to mate with ALS-600 amplifier.
Dimensions:
12Dx9 1/2Wx6H inches.
Operating Weight:
9 lbs.*
Shipping Weight:
15 lbs.*
AC Line Connector:
NEMA-5-15P.

Note:
* Total Shipping weight for ALS-600 Amplifier and ALS-600SPS power supply is 33 lbs., shipped together.

ALS-600/ALS-606 Specifications:

Frequency Coverage:
(US) 1.5 to 22 MHz continuous; **(Export)** 1.5-30 MHz continuous.
Input: Circuit type:
Broadband, resistor swamped.
Maximum VSWR at resonance: 1.5:1.
Bandwidth: Broadband.
Maximum drive power permissible: 100 Watts.
Typical drive for rated output: 100 Watts.
Output: Circuit: Broadband, low pass.
Typical SSB PEP voice operation: 600 Watts PEP.
Typical CW operation: 500 Watts.
Power requirement for amplifier:
50 VDC, 25 Amps, +/-14 VDC, 1 Amp.
Output devices:
Power MOSFET (4) MRF-150.
Metering:
Amplifier-Cross-needle meter for VSWR, FWD, reflected true peak indicating wattmeter.
ALC:
Negative going 12 VDC, adjustable, RCA phono jack.
Efficiency CW: 50%.
Efficiency SSB: (envelope crest) 55%.
MARS/WARC: Yes, continuous coverage.
Keying:
Relay closure or sinking to ground of +12 VDC at 100 mA, RCA phono jack.
Power Supply connector:
Beau multi-contact male chassis mount.
RF Connectors:
SO-239 for input and output.
Dimensions:
9 1/2Wx6 1/2Hx12D inches.
Operating Weight:
12.5 lbs.
Shipping Weight:
18 lbs. (amp only).
Third Order IMD at rated Output:
-35 dB PEP or better.

ALS-606 is similar to ALS-600 but has automatic bandswitching and covers 1.5-54 MHz.

ALS-600/ALS-606PS Power Supply Specifications:

Line Input:
120 VAC/240 VAC.
Output: 50 VDC, 25 Amps, +/-14 VDC, 1 Amp.
Metering:
Cross-needle for volt/amp.
Output Cable:
6 foot prewired cable with Beau multi-contact connector to mate with ALS-600 amplifier.
Dimensions:
9 1/2Wx6 1/2Hx12D inches.
Operating Weight:
32 lbs.*
Shipping Weight:
37 lbs.*
AC Line Connector:
NEMA-5-15P.

Note:
* Total Shipping weight for ALS-600 Amplifier and ALS-600PS power supply is 57 lbs., shipped together.

ALS-1300/ALS-1306 Specifications:

ALS-1300 Frequency Coverage: (US) 1.5 to 22 MHz continuous; **(Export)** 1.5-30 MHz continuous.
ALS-1306 Frequency Coverage: 1.5 to 54 MHz continuous (excluding 27 MHz).
Input: Circuit type:
Broadband, resistor swamped.
Maximum VSWR at resonance: 1.5:1.
Bandwidth: Broadband.
Maximum drive power permissible: 100 Watts.
Typical drive for rated output: 100 Watts.
Output: Circuit: Broadband, low pass.
Typical SSB PEP voice operation: 1200 Watts PEP.
Typical CW operation:
1000 Watts.
Power requirement for amplifier:
50 VDC, 50 Amps, +/- 14 VDC, 2 Amps.
Output devices:
Power MOSFET (8) MRF-150.
Metering:
Two Cross-Needle Meters for VSWR, FWD, REF true peak indicating wattmeter, ALC, high voltage PA1 and PA2. Constant current monitor PA1 and PA2.
ALC: Negative going 12 VDC, adjustable, RCA phono jack.
Efficiency CW: 50%.
Efficiency SSB: (envelope crest) 55%.
MARS/WARC: Yes, continuous coverage.
Keying: Relay closure or sinking to ground of +12 VDC at 100 mA, RCA phono jack.
Power Supply connector:
Beau multi-contact male chassis mount.
Bandswitch:
ALS-1300, manual or use optional Radio Interface, ARI-500 and radio interface cable.
ALS-1306, manual or automatic with built-in automatic bandswitch. Requires optional radio interface cable.
RF Connectors:
SO-239 for input and output.
Dimensions:
18Dx10Wx6 1/2H inches.
Operating Weight: 22 lbs.
Shipping Weight: 27 lbs.
Third Order IMD at rated Output:
-35 dB PEP or better.

ALS-1300/ALS-1306 *Included* Switching Power Supply Specifications:

Line Input:
120 VAC@30 Amps
240 VAC@14 Amps (Default)
Output: 50 VDC, 50 Amps, +/-14 VDC, 2 A.
Output Cable:
6 foot prewired cable with Beau multi-contact connector to mate with ALS-1300/ALS-1306 amplifier.
Dimensions:
9 1/2Dx10Wx6 1/2H inches.
Operating Weight:
15 lbs.*
Shipping Weight:
20 lbs.*
AC Line Connector:
NEMA-6-15P.
Note:
* Total Shipping weight for ALS-1300/ALS-1306 Amplifier and power supply is 49 lbs., shipped together.

* Exact performance measurements may vary due to the accuracy of test equipment and the measurement methods used. *(Prices and specifications subject to change without notice or obligation).*

AL-80B Specifications:

Input: Circuit type: Pi-network, slug tuned coils.
Maximum VSWR at resonance: 1.3:1 or less.
Minimum 2:1 VSWR bandwidth: 20% of center frequency. **Max. drive power permissable:** 100 Watts.
Typical drive for full power output: 85 W.
Output:
Typical SSB PEP voice operation: 1000 Watts.
Typical CW operation: 800W
1/2 hour PEP two tone test: 800 Watts.
1/2 hour continuous carrier (RTTY): 500 Watts.
Power Supply:
Circuit type: Full wave voltage doubler.
No load voltage: 3000 Volts.
Full load voltage: 2700 Volts.
Full load current: .450 Amp.
Regulation: 10%.
Transformer: 26 pounds.
Capacitors: 33 uFd total, computer grade.
Maximum draw at rated output: 12 Amps.
AC Input: 120 V, 50/60 Hz.
Tubes:
Type: *Classic* 3-500G.
Continuous dissipation: 500 Watts.
Warm-up time: 5 seconds.
Metering:
Multimeter: reads HV, forward power, reflected power, SWR, ALC, ALC set.
Current Meter: Reads plate and grid current.
ALC:
True ALC 0-10V negative, front panel adjustable.
Efficiency CW: Typically 66% or greater.
***Efficiency SSB (envelope crest):** Approximately 66% or greater.
MARS/WARC:
Yes, set to the nearest band.
Connectors:
Keying: Supplies 100 mA when grounded, built-in back-pulse cancelling diode, protects the exciter. 12 VDC open circuit.
RF input:
SO-239, 50 Ohm input.
RF Out:
50 Ohms with full power into any SWR below 3:1.
Power:
NEMA 5-15P, 120 Volts.
Dimensions:
15 1/2Dx14 1/2Wx8 1/2H inches.
Operating Weight: 48 lbs.
Shipping Weight:
Unit, 54 lbs.; Tube, 3 lbs.
Frequency Coverage:
Domestic model: 160, 80, 40, 30, 20, 17, 15 M. 10/12 M with modification. Must present FCC license at time of sale to obtain modification details.
Third Order IMD at Rated Output: -35 dB.

AL-572 Specifications:

Input: Circuit type: Pi-network, slug tuned coils.
Maximum VSWR at resonance: 1.3:1 or less.
Minimum 2:1 VSWR bandwidth: 20% of center frequency. **Max. drive power permissable:** 100 Watts.
Typical drive for full power output: 70 Watts.
Output: Typical SSB PEP voice operation: 1300 Watts nominal (7 MHz).
Typical CW operation: 900 Watts nominal.
1/2 hour PEP two tone test: 1000 Watts.
1/2 hour continuous carrier (RTTY): 650 Watts.
Power Supply:
Circuit type: Full wave voltage doubler.
No load voltage: 2800 Volts.
Full load voltage: 2500 Volts.
Full load current: .7 Amp.
Regulation: 14% or less.
Transformer: 21 pounds.
Capacitors: 33 mFd total, computer grade.
Maximum draw at rated output: 16 Amps.
AC Input: 120 V, 50/60 Hz.
Tubes: Type: *572B (x4).*
Continuous dissipation: 640 Watts.
Warm-up time: 5 seconds.
Metering:
Multimeter: reads HV, forward power, reflected power, SWR, ALC, ALC set.
Current Meter: Reads plate and grid current.
ALC:
True ALC 0-10V negative, front panel adjustable.
Efficiency CW: Typically 60% or greater.
***Efficiency SSB (envelope crest):** Typically 60% or greater.
MARS/WARC:
Yes, set to the nearest band.
Connectors:
Keying: Supplies 100 mA when grounded, built-in back-pulse cancelling diode, protects the exciter. 12 VDC open circuit.
RF input:
SO-239, 50 Ohm input.
RF Out:
50 Ohms with full power into any SWR below 3:1.
Power:
NEMA 5-15P, 120 Volts.
Dimensions:
15 1/2Dx14 1/2Wx8 1/2H inches.
Operating Weight: 40 lbs.
Shipping Weight: 48 lbs.
Frequency Coverage:
Domestic model: 160, 80, 40, 30, 20, 17, 15 Meters. 10/12 Meters with modification. Must present FCC license at time of sale to obtain details.
Third Order IMD at Rated Output: -34 dB (below PEP rated output).

AL-82 Specifications:

Input: Circuit type: Pi-network, slug tuned coils.
Maximum VSWR at resonance: 1.2:1
Minimum 2:1 VSWR bandwidth: 20%.
Max. drive power permissable: 130 Watts. **Typical drive rated output:** 100 Watts
Output:
Typical SSB PEP voice operation: 1500 Watts.
Typical CW continuous operation: 1500 Watts.
30 second PEP two tone test:1800 Watts plus.
1/2 hour PEP two-tone test: 1800 Watts.
Power Supply:
Circuit type: full wave bridge, capacitor input.
No load voltage: 3600 Volts.
Full load voltage: 3300 Volts.
Full load current: .8 Amp.
Regulation: 10% or better. Transformer: 32 lb HypersilR, capacitors: 26 uFd total, computer grade. **Maximum draw at rated output:** 13 Amps.
AC Input: 240 V, 50/60 Hz.
Tubes:
Type: 3-500G *Classic* (2).
Continuous dissipation: 1000 Watts.
Warm-up time: 5 seconds.
Metering:
Multimeter: Plate current, plate voltage, drive/ALC, power output (PEP Watts).
Grid Meter: Reads PA grid current
ALC: Negative going, 0-20 V, phono jack
Efficiency CW: 65% typical.
***Efficiency SSB (envelope crest):** 62% typical.
MARS/WARC:
Yes, set to the nearest band.
Connectors:
Keying: engages amplifier when grounded. +12 VDC open circuit and supplies 100 mA when grounded. A built-in back-pulse cancelling diode protects the exciter.
RF input:
SO-239, 50 Ohm input.
Power:
NEMA 6-15P, 240 Volts.
Dimensions:
18 1/2Dx17Wx10H inches.
Operating Weight:
76 pounds.
Shipping Weight:
Unit, 50 lbs.; Tubes, 6 lbs.; Transformer, 35 lbs.
Frequency Coverage:
Domestic model: 160, 80, 40, 30, 20, 17, 15 Meters. 10/12 Meters with modification. Must present FCC license at time of sale to obtain modification details.
Third Order IMD at Rated Output:
-34 dB at 1500 Watts Output.

AL-1200 Specifications:

Input: Circuit type: Pi-network, slug tuned coils.
Maximum VSWR at resonance: 1.2:1 or less.
Minimum 2:1 VSWR bandwidth: 20% of center frequency. **Max. drive power permissable:** 130 Watts.
Typical drive for full power output: 130 W.
Output:
Circuit type: Pi-L.
1/2 hour PEP two tone test: 1800 Watts.
30 second PEP two tone test: 1800 Watts plus.
Power Supply:
Circuit type: Full wave bridge, capacitor input.
No load voltage: 3600 Volts.
Full load voltage: 3300 Volts.
Full load current: .8 Amp.
Regulation: 10% or better.
Transformer: 32 lb. *Hypersil*R.
Capacitors: 26 uFd total, computer grade.
Maximum draw at rated output: 13 Amps.
AC Input: 240 V, 50/60 Hz.
Tubes:
Type: *Eimac*R 3CX1200Z7.
Continuous dissipation: 1200 Watts.
Warm-up time: 5 sec.
Metering:
Multimeter: Reads plate current, plate voltage, drive/ALC, power output (PEP Watts).
Grid Meter: Reads grid current.
ALC:
Negative going, 0-20 Volts, adjustable, phono jack.
Efficiency CW: 65%.
***Efficiency SSB (envelope crest):** 62%.
MARS/WARC: Yes, set to the nearest band.
Connectors:
Keying: Engages amplifier when grounded, +12 VDC open circuit and supplies 100 mA when grounded, built-in back-pulse cancelling diode protects the exciter.
RF input:
SO-239, 50 Ohm input.
Power:
NEMA 5-15P, 240 Volts.
Dimensions:
18 1/2Dx17Wx10H in.
Operating Weight:
77 pounds.
Shipping Weight:
Unit, 50 lb., Tube, 5 lb., Transformer 35 lb.
Frequency Coverage:
Domestic model: 160, 80, 40, 30, 20, 17, 15 Meters. 10/12 Meters with modification. Must present FCC license at time of sale to obtain details.
Third Order IMD at Rated Output: -34 dB at 1500 Watts output.

AL-1500 Specifications:

Input: Circuit type: Pi-network, slug tuned coils.
Maximum VSWR at resonance: 1.3:1 or less.
Minimum 2:1 VSWR bandwidth: 20% of center frequency. **Max. drive power permissable:** 100 Watts.
Typical drive for full power output: 65 Watts.
Output:
Circuit type: Pi-L.
1/2 hour continuous carrier: 1500 Watts.
30 second continuous carrier: 2500 Watts plus.
1/2 hour PEP two tone test: 2500 Watts plus.
30 second PEP two tone test: 2500 Watts plus.
Power Supply:
Circuit type: Full wave bridge, capacitor input.
No load voltage: 3600 Volts.
Full load voltage: 3300 Volts.
Full load current: 1 Amp.
Regulation: 10% typical.
Transformer: 32 lb. *Hypersil*R. **Capacitors:** 26 uFd total, computer grade.
Maximum draw at rated output: 15 Amps.
AC Input: 240 V, 50/60 Hz.
Tubes:
Type: *Eimac*R 3CX1500/8877.
Continuous dissipation: 1500 Watts.
Warm-up time: 180 sec.
Metering:
Multimeter: Reads plate current, plate voltage, drive/ALC, power output (PEP Watts).
Grid Meter: Reads grid current.
ALC: Negative going, 0-20 Volts, adjustable, phono jack.
Efficiency CW: 65%.
***Efficiency SSB (envelope crest):** 62%.
MARS/WARC:
Yes, set to the nearest amateur band.
Connectors:
Keying: Engages amplifier when grounded, +12 VDC. 100 mA when grounded, built-in back-pulse cancelling diode protects the exciter.
RF input:
SO-239, 50 Ohm input.
Power:
NEMA 6-15P, 240 Volts.
Dimensions:
18 1/2Dx17Wx10H in.
Operating Weight:
77 pounds.
Shipping Weight:
Unit, 50 lb., Tube, 3 lb., Transformer 35 lb.
Frequency Coverage:
Domestic model: 160, 80, 40, 30, 20, 17, 15 Meters. 10/12 Meters with modification. Must present FCC license at time of sale to obtain details.
Third Order IMD at Rated Output: -36 dB.

Ameritron Rig-to-Amplifier Interface Open-end Cables and Connectors

These open-end cables and connectors will fit most current HF transceivers. Select the open-end cable or a connector from the chart (right). For an ARB-704 cable, 600-5005 is also required. For an ALS-1306 cable, 610-3409K is also required.

Figure	Item Number	N/A	Description	Radio Compatibility
A	620-8068H		8-Pin Mini DIN, Male, 3 ft.	Kenwood TS-480 Yaesu FT-897/857/100/817/840/890/990
B	620-8060		10-Pin mini DIN, Male, 3ft.	Yaesu FT-450/950/1200
C	620-8025BH		5-Pin DIN, Male, 3 ft.	Yaesu FT-980
D	620-8027BH		7-Pin DIN, Male, 3 ft.	Most Kenwood, ICOM ACC 2
E	620-8028BH		8-Pin DIN, Male, 3 ft.	ICOM ACC
F	620-80213H		13-Pin DIN, Male, 3 ft.	ICOM IC-706/7000/718
G	600-6005		5-Pin Mini DIN, Male Connector	Yaesu FT-847
H	600-5005		5-Pin DIN, Male Connector	Ameritron ARB-704
I	600-5008B		8-Pin DIN modified connector	Yaesu Band Data
J	610-3515K		DB15 Male Connector	Yaesu FT-DX3000
K	610-3515HDK		DB-15 Male High Density Connector	Elecraft
L	610-3409K		DB-9 Female Connector	ALS-1306

AMERITRON *True Legal Limit™* Tuner

- ***Handles over 1.5 kW carrier***
- ***High Current edge-wound silver plated Roller Inductor***
- ***500 pf tuning capacitors, 6:1 vernier reduction drives***
- ***3 core choke balun***
- ***6 position antenna switch***
- ***True peak reading meter with LED Meter Light***

AMERITRON's ATR-30 *True Legal Limit™* roller inductor antenna tuner is ham radio's toughest! It'll handle 1500 Watts *continuous carrier output* on *all* modes and *all* HF bands into most antennas -- even on 160 Meters where most antenna tuners fail.

Perfect for Ameritron's most powerful amps where the ATR-30 just loafs. All bands lets you operate 1.8-30 MHz including MARS & WARC bands.

Ameritron's *super high current* air core roller inductor is *edge wound* from a thick solid copper strip and silver plated. This produces a large surface area and a massive conductor. Carry huge circulating RF currents and withstand tremendous heat that'll melt or burn ordinary inductors. Gear driven turns counter, crank knob gives you precise inductance control.

Two 500 pf -- *the highest of any antenna tuner* -- variable transmitting capacitors give no-arc wide range impedance matching for true high power performance. 6:1 vernier reduction drives makes capacitor tuning smooth and easy. Super heavy duty 3 core choke balun matches virtually any balanced feedline antenna without core saturation.

6-position antenna switch lets you select your desired operating antenna. Active electronic *true* peak reading meter accurately reads forward/reflected power and SWR *simultaneously* on a super-bright LED lighted Cross-Needle meter.

Desktop 13 1/4Wx5 5/8Hx17 1/2D inches.

ATR-20. Handles 1.2 kW PEP SSB, slightly less on 160M.

AMERITRON Remote Coax Switches

Ameritron RCS-4 is a 2.5 kW remote controlled coaxial switch that selects one out of four outputs, 1.5 to 100 MHz by supplying all control voltages through the coaxial line.

Attractive indoor console has bright LED antenna selector indicators. A steel enclosure provides 100% shielding to prevent RFI and TVI interference. Switching time is 50 milliseconds. *Teflon*(R) quality SO-239 connectors provide reliable connections.

Weatherproof switching box uses three heavy duty double pole 8 ampere hermetically sealed relays on a rugged G-10 fiberglass circuit board.

RCS-4 operates 120 VAC.

RCS-4Xis for 220/240 VAC.

RCS-4L includes lightning surge protection.

Loss at 30 MHz less than 0.1 dB. VSWR is low, under 1.25:1 from 1.5-60 MHz. **Impedance:** 50 Ohms.

RCS-8V is a 5 kW DC to 150 MHz Remote Coax Switch that lets you remotely switch up to five separate antennas using one inexpensive small control line (like standard telephone wire) -- ***Eliminate*** a tangle of troublesome coax and have a simple and neat installation -- with just 1 single feedline.

VSWR is less than 1.2 from DC to 250 MHz and less than 0.1 dB loss at 150 MHz -- great for the all HF/VHF/UHF radio operator.

It handles over 5 kW below 30 MHz and 1 kW at 150 MHz. You can ground unused positions or leave them open.

RCS-8Voperates from a 120 VAC power source or **RCS-8VX** for 220/240 VAC. Use any 6 conductor control line (not supplied) and allows safe operation with 14V control voltage.

RCS-8VN. Like RCS-8V but has N-type connectors.

RCS-8VL. Like RCS-8V, adds lightning surge protection.

RCS-10 is a 5 kW remote coaxial switch selects one of eight antennas using an inexpensive three or four conductor control line (such as standard telephone wire) DC up to 150 MHz.

Inexpensive and simple wiring selects up to eight antennas using one four conductor telephone type control line. A whole antenna farm connected to one control box -- amazing!

Long Relay Life: UL/CSA/VDE approved sealed relays with 16 ampere switching current rating. Tested to withstand 1200V RMS.

VSWR: Under 1.25:1 below 30 MHz; Under 1.3:1 below 60 MHz; Under 1.8:1 below 150 MHz. **Impedance:** 50 Ohms.

Power Requirement: RCS-10, 10-15 VDC or 120 VAC with AC adaptor supplied. **RCS-10X,** 10-15 VDC/230 VAC.

Relay Control Line Voltage: 10-15 VDC at less than 300 mA.

RCS-10L. Like RCS-10, adds lightning surge protection.

Automatic Remote Coax Switch

RCS-12 is a 5 kW automatic remote antenna switch covering DC to 100 MHz. Reads band data from your rig, selects pre-programmed antenna automatically. Easy as a push of a button. Eight LEDs to indicate which antenna is selected.

RCS 12 monitors the amplifier keying line. Prohibits antenna relay transfers while active. It prevents a distracted operator from picking the wrong switch position at the wrong time.

Safeguards your expensive equipment from fatigued operators in contests and long exchanges.

RCS-12. Includes automatic controller and 8-position relay box.

RCS-12L. Like RCS-12 but adds lightning surge protection.

RCS-12C. Controller only.

Fan Cooled Dry Dummy Load

AMERITRON's 2500 Watt *fan cooled* dummy load handles any legal limit amplifier. lets you tune-up fast and easy. Works with all amps, radios and transmitters DC to 6 Meters. Dissipates 2500 Watts average power for 1 minute on, 10 minutes off. 300W continuous. SWR < 1.25 to 1 below 30 MHz. < 1.4 30-60 MHz. Four 50 Ohm non-inductive super high energy density resistors are used. Each has 7000 joules per cubic inch per second with a voltage gradient of 10 kV per inch!

Legal Limit Oil-filled Dummy Load

AMERITRON's Legal Limit oil filled dummy load lets you run the maximum legal limit of 1500 Watts for a full five minutes.

ADL-1500 has high quality industrial grade transformer oil (no PCB) and heavy duty 50 Ohm resistor.

AMERITRON's Legal Limit oil filled dummy load gives you SWR under 1.2 to 30 mHz and low SWR to 400 MHz.

Durable, sturdy gallon can measures 7 1/2Hx6 5/8D inches. Detailed specifications and power curve.

Order ADL-1500 with industrial grade transformer oil. Order **ADL-1500X** without oil.

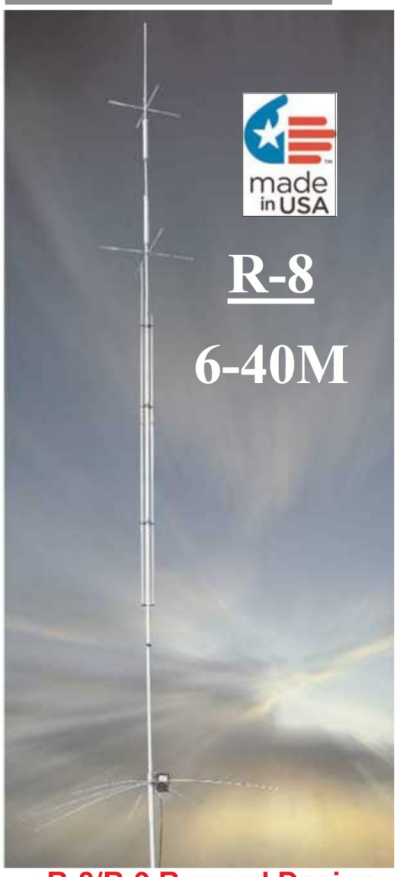
ADL-21. 1 Gallon Industrial Grade Transformer oil.

6-80 Meters

Cushcraft R8 and R9 cover 6, 10, 12, 15, 17, 20, 30, 40 Meters . . . and the new R9 expands coverage to . . . . 80 Meters!

- **NO GROUND RADIALS NEEDED**
- **RUGGED CONSTRUCTION**
- **INSTANT BAND CHANGING**
- **SLIM, LOW PROFILE SILHOUETTE**

6-40 Meters



Big Brother R9 now includes 75/80 Meters for local ragchewing and worldwide low band DX *without radials*!

It's omni-directional low angle radiation gives you exciting and easy DX on all 9 bands: 75/80, 40, 30, 20, 17, 15, 12, 10 and 6 Meters with low SWR. QSY instantly -- no antenna tuner needed.

Use full *1500 Watts* SSB/CW when the going gets tough to break through pileups and poor band conditions.

The R9 is super easy to assemble, installs just about anywhere, and its low profile blends inconspicuously into the background in urban and country settings alike.

Compact Footprint: Installs in an area about the size of a child's sandbox -- no ground radials to bury with all RF-energized surfaces safely out of reach.

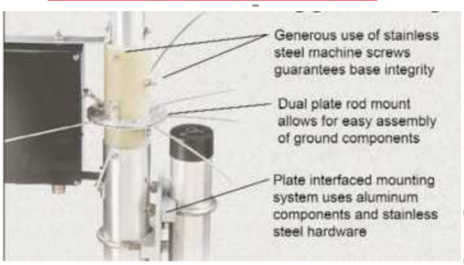
Rugged Construction: Thick fiberglass insulators, all-stainless steel hardware and 6063 aircraft-aluminum tubing is double or triple walled at key stress points to handle anything Mother Nature can dish out.

R9 is 31.5 feet tall, 25 lbs. Mounting mast 1.25 to 2 inches. Wind surface area is 4 square feet. Wind survivability is 60 MPH.

R8. Like R9, but less 75/80 Meters.

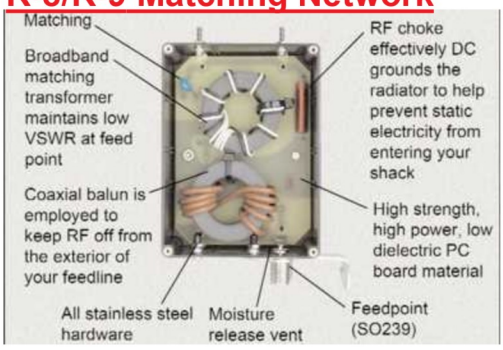
R-8TB. Tilt-base lets you tilt your antenna up and down easily by yourself. Makes it easy to work on by yourself, no need to call your ham buddies over to help take it down and lift back up.

R-8/R-9 Rugged Design

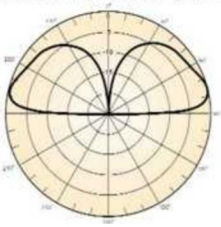

Generous use of stainless steel machine screws guarantees base integrity
Dual plate rod mount allows for easy assembly of ground components
Plate interfaced mounting system uses aluminum components and stainless steel hardware

R-8GK. 3-point guy kit for vertical antennas or antenna masts. Consists of guy brackets, thimbles, galvanized steel stakes, 150 feet of Danscord rope. Everything needed to secure your antenna or mast safe in high winds.

R-8/R-9 Matching Network


Matching
Broadband matching transformer maintains low VSWR at feed point
Coaxial balun is employed to keep RF off from the exterior of your feedline
All stainless steel hardware
Moisture release vent
RF choke effectively DC grounds the radiator to help prevent static electricity from entering your shack
High strength, high power, low dielectric PC board material
Feedpoint (SO239)

Typical elevation radiation pattern



R-8 and R9 provide 360 degree (omni) coverage on the horizon and a low radiation angle in the vertical plane for a better DX.

Specifications	R8	R9
Frequency Meters	6,10,12,15,17,20, 30,40	6,10,12,15,17,20, 30,40,80
Gain (dBi)	3	3
VSWR at resonance	1.3:1 typical	1.3:1 typical
VSWR 2:1 bandwidth, KHz	40M(150) 30M(>50) 20M(>350) 17M(>100) 15M(>450) 12M(>100) 10M(>1500) 6M(>1500)	80M(35) 40M(150) 30M(>50) 20M(>350) 17M(>100) 15M(>450) 12M(>100) 10M(>1500) 6M(>1500)
Power Watts PEP (FM)	1500 (500)	1500 (750)
Radiation angle, deg.	16	16
Horizontal rad., deg.	360	360
Height, ft. (m)	28.5 (8.7)	31.5 (10.7)
Mast size range, in(cm)	1.25-2" (3.18-5.1)	1.25-2" (3.18-5.1)
Wind load, ft2 (m2)	1.5 (.14)	1.5 (.14)
Wind surface area	2.5 sq. ft(0.23m)	4 sq. ft.(0.33m)
Weight, lb.(kg)	23 (10.5)	25 (12.5)
Shipping Dimensions	3.75x5.25x84.5"	3.75x5.25x84.5"

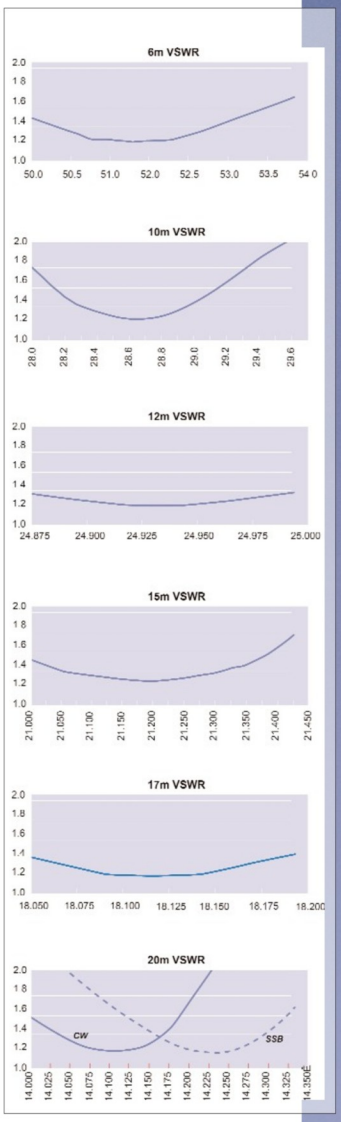
Cushcraft R-6000 Multiband HF Vertical 6-20 Meters

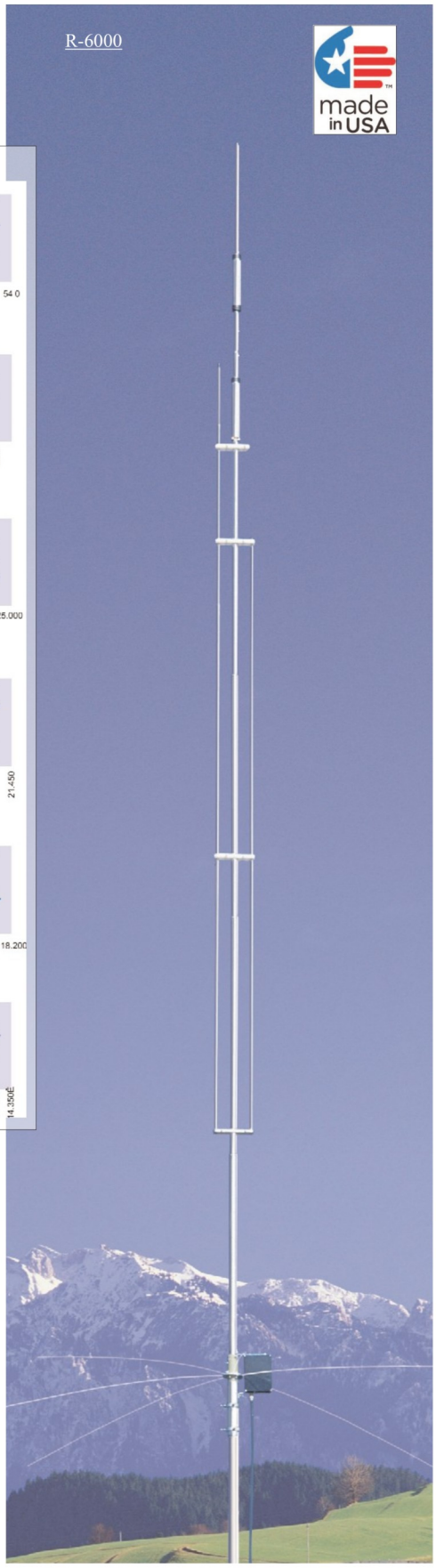
Multi-band 6-20 Meters, No Radials, No Tuning, Handles 1500Watts

The R-6000 is a 6 through 20 meter, no ground radial antenna. It includes many of the features of the R8, R7 and R5 antennas. R-6000 means excellent performance, easy installation and use, slim silhouette and high reliability. There are no traps used on 6, 10 and 15 meters for maximum efficiency and power handling.

- **EASY INSTALLATION**
  For typical use, tuning is not required
- **INSTANT BAND CHANGING**
  To any band 6 through 20 Meters
- **SLIM SILHOUETTE**
  Gain favor of family and neighbors with the slim, low profile of the R6000
- **6 METER OPERATION**
  Join the fun of the "Magic Band" and take advantage of new HF/50 MHz transceivers
- **AFFORDABLE PRICE**
  Cushcraft delivers the best quality and performance at a price no one else can match

Specifications:	R-6000
Frequency,meters	6, 10, 12, 15, 17, 20
Gain (dBi)	3
VSWR at resonance	1.2:1 typical
2:1 bandwidth, KHz	6m >1300 10m >1700 12m >100 15m >450 17m >100 20m 300
Power Watts PEP (FM)	1500 (500)
Radiation angle, deg.	16
Horizontal rad, deg.	360
Height, ft (m)	20.5 (6.25)
Mast size range, in (cm)	1.5 -1.75 (3.8-4.4)
Wind load, ft2 (m2)	1.5 (.14)
Weight, lb (kg)	16 (6.25)
Shipping Dimensions	7″x 4.5″x 63″





The R-6000 employs quarter wavelength stubs on 10 and 15 Meters to replace standard trap coils. The result is lower loss and wider bandwidth. The R-6000 covers all bands 6 through 15 meters at a VSWR under 2:1. On 20 meters you can select the top 300 KHz or bottom 300 KHz of the band.

The R-6000 weighs only 12-1/2 pounds (5.6 kg). It is lightweight and easy to mount for portable or permanent installations. Machined aluminum clamps and UV stable insulators guarantee years of reliable service. The R-6000 comes with the standard warranty of one year from purchase - plus the industry's leading technical support team stands behind each antenna.

The R-6000 makes an excellent diversity antenna to complement even the most complete stations, or pack up the R-6000 for a trip to the DX location of your dreams.

Cushcraft Compact HF Multi-Band Beam — 6-20 Meters

MA-6B 6-Band Beam

Small Footprint -- Big Signal 2-Elements on 20/17/15/12/10/6 Meters!!!

Cushcraft's latest MA-6B gives you *2-elements on six bands!* You get solid *signal-boosting directivity* in a bantam-size and weight. It mounts on your roof or mast using standard TV hardware. It's perfect for exploring exciting DX without the high cost and heavy lifting of installing a large tower and a full-sized array. Its 7 foot 3-inch boom has less than 9 feet of turning radius. Contest tough -- handles 1500 Watts. The unique MA-6B is a *two-element Yagi* on 20/17/15/12/10/6 Meters. It delivers solid power-multiplying gain over a dipole on *all* bands.You get automatic band switching and a super easy installation in a compact 26-pound package. When working DX, what really matters are the interfering signals and noise you *don't hear*. That's where the MA-6B's impressive side rejection and front-to-back ratio really shines.

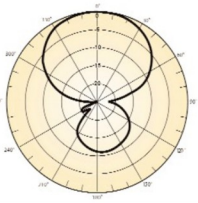
Specifications:	MA-5B/MA6B					
Frequency Bands	6	10	12	15	17	20
Elements per Band	2	2	1	2	1	2
Gain, dBi	2	5.3	2	4.8	2	3.6
Front to Back Ratio, dB	0	10	0	12	0	22
Side Lobe Atten. dB	20	25	20	25	20	25
VSWR 2:1 Bandwidth. KHz	>10	655	>10	225	>100	90
Longest Element, in (cm)	17.1	17.1′(52m)	17.1′(52m)	17.1′(52m)	17.1′(52m)	17.1′(52m)
Turning Radius, ft (m)	8.8	8.8′(2.7m)	8.8′(2.7m)	8.8′(2.7m)	8.8′(2.7m))	8.8′(2.7m)
Boom Length, ft (m)	7.3	7.3′(2.2)	7.3′(2.2)	7.3′(2.2)	7.3′(2.2))	7.3′(2.2)
Boom Diameter, ft (m)	1.5"	1.5″(3.8cm)	1.5″(3.8cm	1.5″(3.8cm	1.5″(3.8cm	1.5″(3.8cm
Max. Wind Surface Area	3.2ft	3.22ft² (3m²)	3.22ft² (3m²)	3.22ft² (3m²)	3.22ft² (3m²)	3.22ft² (3m²)
Max. Power Watts PEP (FM)	1200W	1200W (400W)	1200W (400W)	1200W (400W)	1200W (400W)	1200W (400W)
Weight, lb (kg)	26.5	26.5 (12)	26.5 (12)	26.5 (12	26.5 (12)	26.5 (12)

The MA-5B, Compact HF Multi-Band Beam

Small Footprint -- Big Signal

MA-5B is Cushcraft's multiband HF antenna that provides 5-Band operation in a package small enough to mount on a tripod.

The MA-5B is a design that does not sacrifice ruggedness, performance and power handling for size and ease of installation.



High Front to Back Ratio on 10/15/20 M

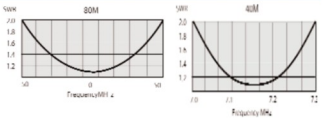
Cushcraft Low Frequency Verticals — 160 and 80/40 Meters

MA-8040V 3.5-7.3 MHz Vertical

MA-8040V is a compact self-supporting HF vertical that delivers excellent DX-hunting performance on 80 and 40 Meters. Only 27 feet tall and weighing in at less than nine pounds, it is small and light enough for one person to handle easily without assistance. Once installed, the MA-8040V virtually disappears against a backdrop of trees and foliage. Parallel resonators use a combination of inductive and capacitive top loading to deliver automatic band switching, high efficiency, and rock-bottom SWR on both bands. Designed to handle maximum legal power and built to last year after year, it's the perfect DX solution when the sunspots silence the higher bands. Radial kit included.

Specifications:	MA8040V	MA160V
Frequency MHz (MA8040V Tunable)	3.5-7.0 (80M) 7.0-7.3 (40M)	1.8-2.0
Gain, dBi [radial / dependant]	0 (80M), 2 (40M)	0
Minimum VSWR	1.1:1	1.1:1
Bandwidth (2:1 SWR)	100 KHz (80M) 300 KHz (40M)	40 KHz
Polarization	Linear Vertical	Linear Vertical
Power Handling PEP	1500 W	1500 W
Vertical Height (m)	23′-27′ (7-8.2)	30′-36′(12-14)
Weight (antenna only) lbs.(kg)	9.0 (4.1)	12 (5.4)
Mount Style	Mast	Mast
Ground Radials	8 Recomended	8 Recomended

MA-160V160-Meter Vertical Monopole Antenna



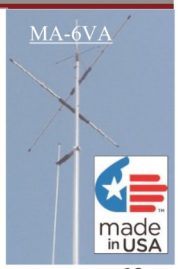
MA-160V is a compact efficient vertical especially designed for working top-band DX from an average-size house lot. A low launch angle and deep overhead null combine to pull in distant stations while rejecting local QRM. The MA-160V features a heavy-duty high-Q copper loading coil plus a wide 100-inch diameter stainless capacitive hat for high efficiency, resiliency and 1500-Watt power handling. An adjustable stinger provides coverage on any 40-kHz segment across the 1.8 2.0 MHz band. Weighing only 12-pounds, the MA-160V installs easily and blends in with backyard trees and vegetation. Each antenna comes with a 400-foot spool of ground-radial wire plus a Danscord™ insulated guying kit.

Cushcraft Restricted-Space HF Verticals — 6-20 Meters

MA-5VA delivers superb multi-band performance and yet is neighbor-friendly. Great for roofs, patios, backyards, condos, motor homes. 6.5 lbs. Get low SWR and 20/17/15/12/10 meters! **MA5V6M.** 6M Add-on Kit.

Specifications:	MA5VA	MA6VA
Frequency meters	10, 12, 15, 17, 20	6,10, 12, 15, 17, 20
Gain (dBi)	1-2	1-2
VSWR at resonance	1.2:1 All bands	1.2:1 All bands
Wind surface area	.82 ft² (.076 m²)	.82 ft² (.076 m²)
Wind Survival, mph	>80	>80
Power Watts PEP. (FM)	250 W (100W)	250 W (100W)
Height, ft (m)	14.7 (4.48)	14.7 (4.48)
Weight, lb (kg)	6.5 (2.95)	6.9 (3.13)
Shipping Dimensions	3"x 3"x 80"-1/2"	3"x 3"x 80"-1/2"

MA-6VA Like MA5VA but adds 6 Meters! Enjoy congestion-free FM-repeater operation and explore the world of exotic seasonal band openings on 50 MHz CW/SSB.



Cushcraft Multiband HF Yagis

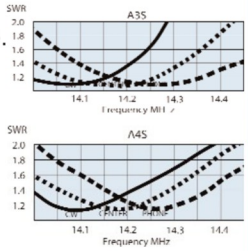
10 - 40 Meters

A-4S Four Element Beam - 10, 15 & 20 Meters

A-4S is the true, high performance tribander. Precisely tuned high-power traps, carefully selected element lengths, and proper spacing combine to make the A-4S the preferred antenna for your HF work! This is the premium antenna with all the features that you want. High gain, low SWR, and wide bandwidth keep the contacts coming in. All U-bolts, clamps and hardware are stainless steel. A-4S has pinned boom sections and formed aluminum brackets to keep elements straight in all conditions. Our solid construction keeps the A-4S on the tower! Add 40 meters with A744 kit.

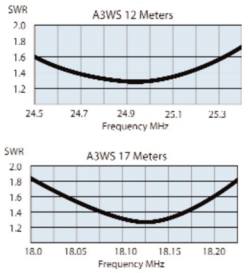
A-3S Three Element Beam - 10, 15 & 20 Meters

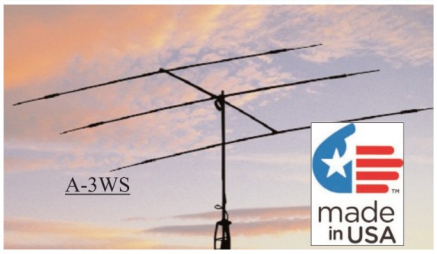
A-3 World Ranger, our top selling tribander, has become the A-3S with all stainless steel hardware. It's a real power-house in a small space and lets you work the pile-ups with confidence. All you need is a lightweight tower and rotator to enjoy the benefits of the A-3S. It's a proven performer in DX-peditions and contests. Handles full power from your amp.Construction features include pinned boom sections, heavy duty element clamps with backing plates plus all stainless steel hardware. When space is a premium, but you want benefits of a full-size tribander, A-3S is right for you! Add 40M with A743 kit.



A-3WS WARC Bands 3 Element, 12 & 17M

Enjoy the excitement of the WARC bands with this popular beam. A-3WS gives full performance on 12/17 meters. With the addition of our easy-to-use A-103 add on kit, it will also cover 30 meters. A-3WS needs only a lightweight tower and rotator or mount it above an existing tribander. Construction features include pinned boom sections, heavy duty element clamps with backing plates plus all stainless steel hardware.





30/40M Add Kits for A-3S/A-4S/A-3WS

40 meters will come alive by adding one of these kits to the dipole of your A-3S or A-4S. Kits include high power traps with heavy wall fiberglass insulator and all hardware. A simple adjustment allows 30 meter operation. For our newest beam, the A3WS, we have a 30 meter add on kit, the A-103.

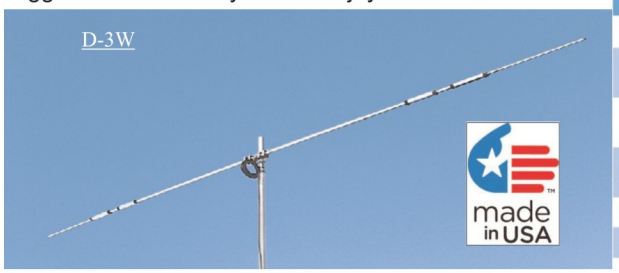
A-743, $249.95. 7 MHz/10 MHz kit for A-3S;
A-744, $249.95. 7 MHz/10 MHz kit for A-4S;
A-103, $239.95. 10 MHz kit for A-3WS.

Specifications:	A743/A744	A743/A744	A103
Band	7 MHz (40 m)	10 MHz (30m)	10 MHz (30m)
Adapter kit, ft (m)	33.19 min. 35.33 max. (10.12-10.77)	27.12 28.4 max. (8.27-8.66)	32.1 (9.8)
Windloading ft2 (m2)	.58 (.05)	.27 (.03)	.45 (.04)
Bandwidth, KHz	125	150	250
Power Rating, Watts	1500 PEP	1500 PEP	1500 PEP
Side Rejection, dB	20	20	20
Weight, lb (kg)	3.44 (1.56)	2.29 (1.04)	3.25 (1.47)

Specifications:	A-4S	A-3S	A-3WS
Frequency MHz	28, 21, 14	28, 21, 14	24, 18
Number of Elements	4	3	3
Gain, dBi	8.9	8.0	8.0
Front to Back Ratio, dB	25	25	25
SWR 1.2:1 Typical. 2:1 Bandwith, MHz	>500	>500	>300
3 dB Beam Width, Deg E Plane	58	60	60
Longest Element, in (cm)	32 (9.75)	27.75 (8.45)	25.1 (7.66)
Turning Radius, ft (m)	18.4 (5.49)	15.5 (4.72)	14.4 (4.4)
Boom Length, ft (m)	18 (5.48)	114 (4.27)	114 (4.27)
Wind Load, ft² (m²)	1.80 (0.17)	4.36 (0.40)	4.1 (0.38)
Mast Size Range, in (cm)	1.25-2.00 (3.18-5.08)	1.25-2.00 (3.18-5.08)	1.25-2.00 (3.18-5.08)
Max. Power Watts PEP(FM)	1500W (1500)	1500W(1500)	1500W(1500)
Weight, lb (kg):	37 (16.8)	27 (12.9)	22.5 (10.2)

Rotatable Dipoles

The World Ranger Dipoles give bi-directional patterns and rotatable convenience. You can mount them high and away from the trees for better performance than a wire dipole. These single and multi-band dipoles feature high-performance traps, heavy wall tubing, and rugged hardware for years of enjoyment.



Specifications:	D40 $949.95	D4 $599.95	D3 $419.95	D3W $459.95
Frequency MHz	7	28,21,14,7	28,21,14	24,18,10
SWR 1.2:1 Typical. 2:1 Bandwith, KHz	40>125	>350	>500	>200
Power Rating Watts PEP (CW)	1500 (500)	1500 (500)	1500 (500)	1500 (500)
Length ft (m)	42.25 (12.88)	35.8 (10.92)	25.8 (7.86)	34.0 (10.37)
Mast Size, in(cm):	1.5-2 (3.8-5)	1.5-2 (3.8-5)	1.5-2 (3.8-5)	1.5-2 (3.8-5)
Wind Load, ft2 (m2)	1.3 (.12)	1.3 (.12)	.9 (.08)	.9 (.08)
Weight, lb (kg):	12 (5)	13 (6)	9 (4)	11 (5)

AR-270B 5.5/7.5 dB Dual Band Ringo

This model gives very high gain with a low angle of radiation and it is only 7.7 feet (2.35 m) high. The AR-270B is computer optimized with two 5/8 wavelength collinear elements on 2 meters and four 5/8 wavelength elements on 70 cm. It is broad-banded for minimum SWR on both bands. It is easy to assemble with three rugged aluminum tubing sections, a durable mast mount and factory sealed coils for best performance.

AR-270 3.0/ 5.5 dB Dual Band Ringo

The "Dual Wonder"AR-270 is only 3.75 feet(1.1 meters) high. It has great performance for its size, making it the most popular 2m/70 cm base antenna.

Specifications:	AR270		AR270B	
Frequency MHz	144-148	430-450	144-148	430-450
Gain, dBi	3.0	5.5	5.5	7.5
SWR 1.2:1 Typical 2:1 Bandwidth, MHz	>4	>15	>4	>15
Horizontal Radiation Pattern, Degrees	360	360	360	360
Height, ft, (m)	3.75 (1.13)		7.7 (2.3)	
Mast Size Range, in	1.25-2 (3.2-5.1)		1.25-2 (3.2-5.1)	
Radial Length, in (cm)	6.75 (17.1)		6.75 (17.1)	
Wind Load, ft2 (m2)	0.27 (0.03)		0.47 (0.044)	
Power, Watts FM	250		250	
Weight, lb (kg)	2 (0.9)		2.4 (1.09)	

A270-10Sand A270-6S
10 and 7.8 dB Dual Band Yagis

Increase your range by selecting one of the Cushcraft dual band Yagis on 2 meters and 70 cm. You can point the antenna at stations while you are in QSO with them. This will direct more of your output power when transmitting at the same time reducing interference and increasing signal strength when receiving. These antennas are perfect for packet applications. Assembly is a snap with our fully illustrated assembly manuals.

Specifications:	A27010S		A2706S	
Frequency	VHF	UHF	VHF	UHF
Number of Elements	5		3	
Forward Gain, dBi	10		7.8	
Front to Back Ratio, dB	20	18	20	18
SWR 1.2:1 Typical 2:1 Bandwidth, MHz	3/4	3/10	3/4	3/20
Power Rating, Watts PEP:	350		350	
3dB Beamwidth, Degrees E Plane H Plane:	52 60		66 108	
Longest Element, in (cm)	40.3 (102.4)		41 (104.1)	
Turning Radius, ft (m)	6 (1.8)		2.8 (.85)	
Boom Length, ft (m)	6.17 (1.9)		2.8 (.85)	
Mast Size Range, in (cm)	1.25-2 (3.2-5.1)		1.25-2 (3.2-5.1)	
Wind Load, ft2 (m2)	.725 (.07)		.3 (.02)	
Weight, lb (kg):	1.8 (.81)		1.7 (.8)	

Ringo Ranger II, Ringo Ranger, Ringo

Ringo Ranger II

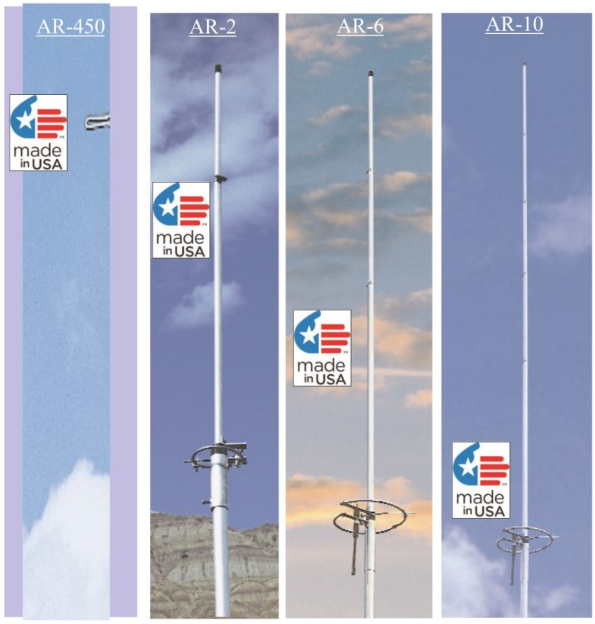
The Ringo Ranger II has more gain, less windload, and more mechanical integrity than other two meter antennas. You'll quickly appreciate the benefits of this amazing antenna! Based on the original W1BX Ringo, the Ringo Ranger II is the latest design featuring three 5/8 wave radiating elements and an adjustable 1/8 wave phasing stub. The result is a very low angle of radiation over your coverage area. The Ringo Ranger II has built-in lightning protection, UV-stabilized insulators, heavy wall tubing, improved decoupling radials to eliminate feedline radiation, and all-weather performance.

Specifications:	ARX2	ARX2B	ARX220B	ARX450B
Frequency MHz	135-160	135-160	222-225	435-450
SWR 1.2:1 Typical 2:1 Bandwidth, MHz	>6	>3	>5	>5
Gain, dBi	5.5	7.0	7.0	7.0
Power Rating,Watt FM	1000	1000	500	500
Radiation Angle, Deg.	16	7	7	7
Horizontal Radiation Pattern, Degrees	360	360	360	360
Radiator Base Dia, in (cm)	5 (12.7)	.75 (1.9)	.75 (1.9)	.50 (1.2)
Height, ft, (m)	12.5 (3.8)	14 (4.3)	9.3 (2.8)	4.9 (1.5)
Mast Size Range, in (cm):	1-1.25 (2.54-3.2)	1.0-1.25 (2.54-3.1)	1.0-1.25 (2.54-3.1)	.75-.88 (1.9-2.22)
Wind Load ft ^{2} (m ^{2})	.33 (.03)	0.5 (0.05)	0.3 (0.03)	.2 (.02)
Radial Length, in (cm)	20.5 (52.1	20.5 (52.1)	13.1 (33.7)	6.75 (17.1)
Weight, lb (kg)	4 (1.8)	6 (2.7)	5 (2.3)	1 (.45)

Ringo

These are the original W1BX F M Ringos. If you want a combination of compact size, wide bandwidth, a low radiation angle, these economical antennas are just for you. Since radials are not needed, you can even use our Ringos indoors. Our Ringos are 1/2 wave and include built-in lightning protection. Put up one of these easily installed antennas and start enjoying FM!

Specifications:	AR2	AR6	AR10	AR450
Frequency MHz	135-160	50-54	28-29.7	440-460
Gain, dBi	3	3	3	3
Radiation Angle, Deg.	16	16	16	16
Horizontal Radiation Pattern, Degrees:	360	360	360	360
SWR 1.2:1 Typical. 2:1 Bandwith, MHz	10	2	>1.5	20
Ring Diameter, in (cm)	5 (12.7)	13 (33)	13 (33)	3.5 (8.9)
Radiator Base Dia, in(cm):	.75 (1.9)	1 (2.5)	1 (2.5)	.5 (1.3)
Height, ft, (m):	3.9 (1.2)	10.1 (3.1)	17.6 (5.36)	1.4 (.43
Mast Size Range, in (cm)	1-1.25	1-1.25	1-1.25)	.75-.88
Wind Load, ft^2 (m^2)	.21 (.02))	.37 (.03)	1.68 (.16)	.1 (.01)
Max. Power Watts PEP	1000W	1000W	1000W	500W
Weight, lb (kg):	1.5 (.68)	2.5 (1.1)	4 (1.8)	1 (.45)



A148-20T
2 Meter Hi-Lo Cross Yagi

Here's the antenna that solves multi-mode problems! Ten vertically polarized and ten horizontally polarized elements provide 11.1 dBi gain covering 144-148 MHz. The horizontal elements handle your CW and SSB needs, while the vertical elements cover FM. Hardware is stainless steel. Separate coax feeds allow polarization changes.

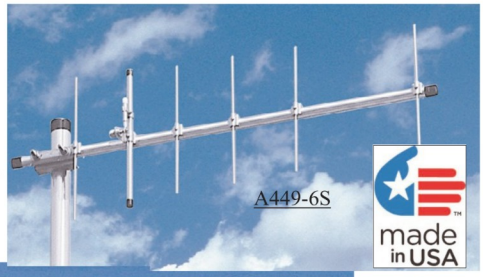
A224WB
220 MHz Widebands

This 222 MHz 4 element beam is perfect for Packet, FM repeaters, or sideband/CW. It can be mounted for vertical or horizontal polarization.

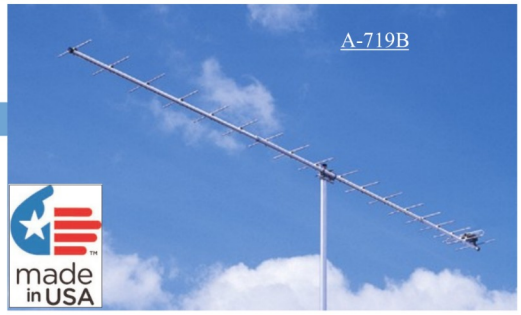
Specifications:	A224WB	A14820T
Frequency MHz	222-225	144-148
Number of Elements	4	10/10
Forward Gain, dBi	10.2	13
Front to Back Ratio, dB	20	24
SWR 1.2:1 Typical 2:1 Bandwidth, MHz	>5	>4
Power Rating, Watts PEP (FM)	1500 (750)	1000 (500)
3dB Beamwidth, Degrees E Plane H Plane	 60 88	 45 50
Side Lobe Attenuation, dB E Plane	40	40
Boom Length, ft (m)	3 (.91)	11 (3.4)
Electrical Wavelength	0.5	1.6
Longest Element, in (cm)	26.7 (68)	40.6 (103)
Turning Radius, ft (m)	3 (.91)	7.5 (2.3)
Mast Size Range, in (cm)	1.25-2 (3.2-5.1)	1.25-2 (3.2-5.1)
Wind Load, ft2 (m2)	.23 (.021)	0.39(0.11)
Weight, lb (kg)	1.7 (.77)	7 (3.15)

A449-6S/A449-11S
440 MHz Beams

Use one of these 440 MHz beams for your FM/Packet needs. Both work great for vertical or horizontal polarization.



Specifications:	A719B $249.95	A43011S $119.95	A4496S $79.95	A44911S $119.95
Frequency MHz	430-450	430-440	440-450	440-450
Number of Elements	19	11	6	11
Forward Gain, dBi	15.5	13.2	10.5	13.2
Front to Back Ratio, dB	25	20	18	20
SWR 1.2:1 Typical 2:1 Bandwidth, MHz	20	>10	>10	>10
Power Rating, Watts PEP	2000	350	350	350
3dB Beamwidth, Degrees E Plane H Plane	 24 19	 48	 60	 48
Side Lobe Atten.,dB,E Plane	60	40	30	40
Boom Length, ft (m)	13.5 (4.1)	4.6 (1.39)	2.9 (0.89)	4.4 (1.35)
Connector Type	N	UHF	UHF	UHF
Longest Element, in (cm)	13.75 (34.9)	14 (35)	13 (33)	13 (33)
Turning Radius, ft (m)	7.25 (2.2)	2.8 (.85)	2.9 (.89)	2.8 (.85)
Mast Size Range, in (cm)	1.25-2 (3.2-5.1)	1.25-1.5 1.25-1.5	1.25-2.0 (3.2-5.1)	1.25-1.5 1.25-1.5
Wind Load, ft2 (m2)	1.2 (.11)	0.42 (0.04)	0.30 (0.03)	0.39 (0.04)
Weight, lb (kg)	5.6 (2.55)	4 (1.8)	3 (1.4)	4 (1.8)



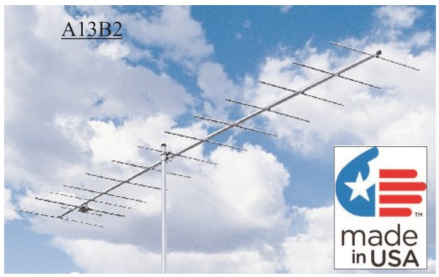
A719B
FM, CW and SSB 15.5 dBi

Looking for an antenna to enhance performance on all modes of the 70 CM band? The 13.5 foot long 719B is the right choice. Mount it vertical for FM or horizontal for CW and Sideband. The A-719B joins the 2 meter A-13B2 as a classic for improved performance.

Cushcraft Boomer Sideband VHF/UHF Yagis

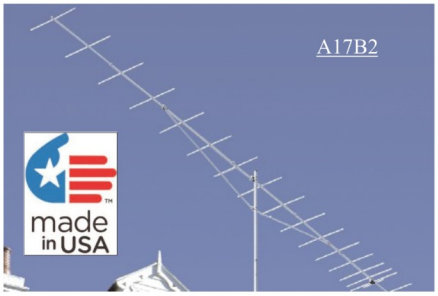
2 Meters

A13B2 -13 Element Wideband Boomer



The A13B2 is as versatile as the A-17B2 is specialized. A13B2 will be your choice for high performance across the entire 2 meter band. New and experienced hams will enjoy 15.8 dBi gain on FM, packet, CW, or sideband across the 4 MHz operating range. The A13B2 is easily mounted vertically or horizontally for maximum performance on your favorite mode. Its optimum boom length makes it a popular antenna that fits just about anywhere. The new UltraMatch balanced feed on the A13B2 provides a 50 Ohm match via a standard SO-239 UHF female connector. Model A13B2N has N connector.

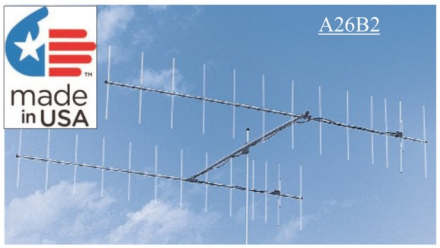
A17B2 - 17 Element CW/SSB Boomer



The serious two meter operator who is interested in EME, aurora, scatter, SSB, CW, tropo etc, will choose the A17B2. It has 17 elements on a 4.5 wavelength boom. Our computer-aided design supported by precise test range data and the latest manufacturing technology gives you a cleaner pattern and 18 dBi gain in this long boom design. Significant enhancement is provided by the new UltraMatch balanced feed system with N-connector.

UltraMatch is a modified T-match system that provides a balanced current distribution on your Boomer. It uses UltraLink *Teflon*® dielectric cable allowing for low loss high power applications. UltraMatch is completely enclosed for weather proofing. UltraMatch has an N-connector on the A17B2 and UHF SO239 on A13B2. When all-weather performance is important, you'll choose the UltraMatched Boomers every time.

A26B2 - 26 Element Wideband Boomer



This antenna offers the highest gain of any 2 Meter FM antenna in the world. A26B2 includes 2 complete A-13B2 antennas, stacking boom and phasing harnesses.

A124WB - 4 Element Wideband Boomer

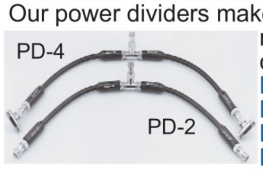
This is the right choice for packet systems and other applications requiring a dedicated directional antenna.

A148-10S & A148-3S 2M Yagis

These antennas are computer optimized models of our 2 meter Yagis. We've improved he pattern and gain to give you better FM coverage. The A148-3S is the low priced quality leader for Packet, FM or even portable use. It is easily rear mounted. A148-10S is one of our best value designs with excellent gain and front-to-back ratio. Use it for long range FM or full band 2 meter operation.

Specifications:	A13B2	A17B2	A124WB	A26B2	A1483S	A14810S
Frequency MHz	144-148	144-145	144-148	144-148	144-148	144-148
Elements per Band	13	17	4	26	3	10
Gain, dBi	15.8	18.0	10.2	17	7.8	13.2
Front to Back Ratio, dB	26	26	19	26	18	24
Side Lobe Atten. dB	>60	>60	40	>60		
SWR 2:1 Bandwidth MHz	>4	>2	4	>4	>5	3 4
Longest Element, in (cm)	39.75 (101)	40.75 (103.5)	40.75 (104)	39.75 (101)	41 (104.1)	40.3 (102.4)
Turning Radius, ft (m)	8.9 (2.7)	17.25 (5.26)	4 (1.22)	10.4 (3.18)	2.8 (.8)	6 (1.8)
Boom Length, ft (m)	15 (4.57)	31 (9.45)	4 (1.22)	15 (4.57)	2.8 (.85)	12 (3.6)
Electrical Wavelength	2.2	4.5	.5	2.2		
Wind Load ft ² (m ²)	1.8 (.17)	3.9 (.36)	.34 (.034)	4.84 (.45)	.27 (.02)	1.21 (.11)
Max. Power Watts PEP	1500W	1500W	1500W	1500W	1000W	1000W
Weight, lb (kg)	6.7 (.31)	15.75 (7.14)	3 (1.36)	21.5 (9.75)	1.5 (.7)	6 (2.7)

Power Divider Harness for Boomers



Our power dividers make it a snap to stack Cushcraft antennas. Just add equal lengths of 50-Ohm coax to each of the feed points.
PD-2. For two A13B2 beams.
PD-4. For four A13B2 beams.
PD-2N. For 2 A17B2 beams.
PD-4N. For 4 A17B2 beams.

Stacking Kits for Cushcraft Boomers

Make stacking your Cushcraft Boomers easy. Choose the Boomer Stacking Kits for your installation. Each stacking kit includes: Stacking Aluminum boom, Power Dividers wire harness and mounting hardware.
Order P/N: A26B2-VPK for two A13B2 Boomers.
Order P/N: A26B2N-VPK for two A17B2 Boomers.
Order two kits for stacking 4 Boomers.

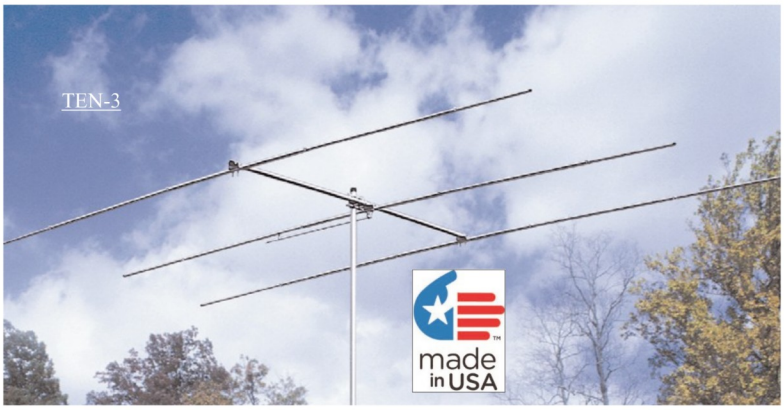
Cushcraft 6 and 10 Meter Yagis

6 Meter Yagis - SSB/CW/FMI

Computer-aided modeling and test range techniques were used by Cushcraft engineers to further optimize the performance of our popular 6 meter Yagis. This process means more gain and cleaner patterns with excellent front-to-back ratios. S-models have very broad bandwidth so they will not detune in bad weather. They feature stainless steel hardware for long trouble-free life. Enjoy the new popularity and exciting contacts on the 6 meter band with one of the S-series Laird Yagis. The A50-3S, A50-5S and A50-6S may be mounted vertically for FM use.

TEN-3 10 Meter Yagi

Looking for a lightweight, economical alternative to the 10 meter big boys? Choose the TEN-3. Although it's popular with novices and technicians, this antenna is for any ham who wants more gain with a good front-to-back ratio on 10 meters. This antenna has an 8 foot boom (2.4m) making it easy to install on a very simple mount with only a light rotator. The matching system is our proven Reddi-Match for 50 Ohm no balun feed and SO-239 connector. Make more positive contacts with the TEN-3 and snag that rare DX.



Specifications:	A503S	A505S	A50-6S	TEN3
Frequency MHz	50-54	50-54	50-54	28-29.7
Number of Elements	3	5	6	3
Gain, dBi	8	10.5	11.6	8
Front to Back Ratio, dB	20	24	26	25
Side Lobe Atten. dB	25	25	25	25
SWR 1.2:1 Typical. 2:1 Bandwith, MHz	>1	>1	>1	>1.5
Longest Element, in (cm)	117 (300)	123 (312)	119 (302)	18 (5.49)
Turning Radius, ft (m)	6′ (1.8)	7.8′ (2.37)	11.5′ (3.5)	9.8′ (3.0)
Boom Length, ft (m)	6′ (1.8)	12′ (3.7)	20′ (6.1)	8′ (2.44)
Wind Load, ft² (m²)	1.80 (0.17)	2.9 (0.273)	4.46 (.41)	2.0 (.20)
Max. Wind Surface Area	3.22ft² (3m²)	3.22ft² (3m²)	3.22ft² (3m²)	3.22ft² (3m²)
Max. Power Watts PEP	1000W	1000W	1000W	1500W
Weight, lb (kg):	7 (3.2)	11 (5.0)	18 (8.2)	9.9 (4.45)

Cushcraft Amateur Information

Cushcraft antennas are designed to survive 80 MPH winds unless otherwise noted. Stainless steel hardware and high-grade seamless 6063-T832 tubing are used in all antennas. Cushcraft antennas are distributed by many fine dealers worldwide. For dealers in the USA, Canada and other countries, please contact Cushcraft.
Sales: Cushcraft Amateur Antennas, 308 Industrial Park Road, Starkville, MS 39759 USA.
Phone: 662-323-9538. **Fax:** 662-323-6551.
Email: *cushcraft@mfjenterprises.com*
Warranty: Cushcraft antennas carry a one year limited warranty.
Information: Visit our website: *cushcraftamateur.com* for additional information. FREE download of Instruction manuals.
Service: Return product to: Cushcraft Antennas, 308 Industrial Park Road, Starkville, MS 39759 USA
Replacement Parts: To purchase or obtain warranty replacement parts, contact Cushcraft.

Cushcraft Low Noise
6M and 2M Loop Fed Arrays

Low Noise 6/2 Meter LFAs designed for Cushcraft by world renowned Justin Johnson, G0KSC

Cushcraft's computer optimized third generation G0KSC Loop Fed Array (LFA) yagis are specifically designed for low noise -- hear weak signals that others can't!

Highly suppressed side lobes eliminate unwanted noise and signal pickup from sides making your desired signal *pop out*!

See and hear for yourself how signals pop out from a low-noise G0KSC LFA as compared to a top performing yagi at *www.cushcraft.com/LFA-6M5EL.php*

Wide-spaced LFA yagis have lower SWR, higher gain, better front-to-back and more broad-banded than dipole fed yagis.

Cushcraft's *direct* 50-Ohm feed has no lossy matching network that limits power handling. hy-gain LFAs handle 5,000 Watts. Operational power is only limited by your coax, connectors and other accessories.

Cushcraft LFAs are also computer optimized for maximum mechanical strength using Cushcraft's exceptionally strong *tooled* parts to give you years of reliable service.

All Cushcraft 6/2 Meter LFAs have heavy duty *2-inch diameter* double walled booms, 5/8" fully insulated elements and 7/16" outer tip sections. *Climb the tower only once!*

See *www.cushcraft.com* for full specifications including SWR curves, pattern plots, gain, wind loading, wind survival, front-to-back, and more.

6-Meter Antenna Performance

Model#	LFA-6M4EL $359	LFA-6M5EL $449	LFA-6M7EL $739	LFA-6M8EL $999
Gain:	10.7 dBi@50.15	11.88dBi@50.15	13.5 dBi@50.15	14.09dBi@50.15
F/B:	35.24 dB@50.15	27.35 dB@50.15	23.8 dB@50.15	23.81 dB@50.15
Peak Gain:	10.76 dBi	11.91 dBi	13.5 dBi	14.15 dBi
Peak F/B:	44.78 dB	28.01 dB	26.23 dB	26.27 dB
Power Rating:	5kW*	5kW*	5kW*	5kW*
SWR:	< 1.5:1 50-50.4	<1.5:1 50-50.3	<1.5:1 50-50.4	<1.5:1 50-50.4
Stack Distance:	17.6 feet recommended	20 feet recommended	24 feet recommended	26.6 feet recommended
2 Stacked Gain:	13.59@17.6 ft.	14.78 dBi	16.28 dBi	16.94 dBi
2 Stacked F/B:	25.04 dB	36.02 dB	25.19 dB	25.80 dB
Boom Length:	13 feet	21 feet	33.6 feet	42 feet
Weight:	8 lbs.	17 lbs.	37 lbs.	39 lbs.
Turning	6' 11"	11' 4"	17' 8"	21' 4"
Radius:	TBA	TBA	TBA	TBA
Wind Loading:	120 MPH	118 MPH	108 MPH	100 MPH
*	*Power handling is limited only by operating station accessories such as coax.*			

9-Element 2-Meter Loop Fed Array

All of our LFA's are SUPER LOW NOISE and HEAVY DUTY with large diameter booms and rated to 5KW+!

LFA-220M10EL
220 MHz

LFA-440M10EL
440 MHz

2-Meter Antenna Performance

Model#	LFA-2M9EL	LFA-2M12EL	LFA-2M14EL	LFA-2M16EL***
Gain:	14.04dBi@144.100MHz	15.79dBi@144.100MHz	16.58dBi@144.100MHz	17.25dBi@144.100MHz
Gain:	14.06dBi@144.300MHz	15.80dBi@144.300MHz	16.60dBi@144.300MHz	17.27dBi@144.300MHz
F/B:	28.39dB@144.100MHz	30.52dB@144.100MHz	31.28dB@144.100MHz	33.47dB@144.100MHz
F/B:	25.20dB@144.300 MHz	28.73dB@144.300 MHz	33.86dB@144.300 MHz	37.53dB@144.300 MHz
Peak Gain:	14.09 dBi	15.82 dBi	16.64 dBi	17.3 dBi
Peak F/B:	26.67 dB	30.53 dB	34.21 dB	38.02 dB
Power Rating:	3kW*	3kW*	3kW*	3kW*
SWR:	< 1.1:1 143.600 to 145.200 MHz	< 1.1:1 143.700 to 145.900 MHz	< 1.1:1 143.900 to 144.800 MHz	< 1.12:1 144.000 to 144.900 MHz
Boom Length	14.5 feet	23 feet	28 feet	35 feet
Weight	7.74 lbs.	9.75 lbs.	11.75 lbs.	19.27 lbs.
Turning Radius	7.36 feet	11.7 feet	14.06 feet	18.12 feet
Wind Loading	1.03 sq. feet	1.64 sq. feet	2.07 sq. feet	2.5 sq. feet
Wind Survival	173 MPH**	109 MPH**	83 MPH**	92 MPH**
Stack Distance Vertical	7-10 feet	7-10 feet	7-10 feet	7-10 feet
Stack Distance Horizontal	7-10 feet	7-10 feet	7-10 feet	7-10 feet
2-Stacked V	16.97dBi@144.300MHz	18.56dBi@144.300MHz	19.39dBi@144.300MHz	20.18dBi@144.300MHz
2-Stacked H	16.93dBi@144.300MHz	18.51dBi@144.300MHz	19.38dBi@144.300MHz	20.15dBi@144.300MHz
4-Stacked H	20.06dBi@144.300MHz	21.74dBi@144.300MHz	22.06dBi@144.300MHz	23.18dBi@144.300MHz
Sky Temp	239.3 K@144.100 MHz	221.0 K@144.100 MHz	214.9 K@144.100 MHz	213.4 K@144.100 MHz
G/T Figure	-3.73dB@144.100 MHz	-1.70dB@144.100 MHz	-0.85dB@144.100 MHz	-0.12dB@144.100 MHz

Cushcraft (R) **4/6M Yagi Antenna**
World's First!!! **DB-46M8EL**

Cushcraft has the *first* 4/6 Meter, 50MHz/70MHz single feed point dual band Yagi! 8 elements (4 elements each band) on a compact 7 foot boom.

Hy-Gain (R) Multi-Band PATRIOT Vertical Antennas

9-band vertical covers 80/40/30/20/17/15/12/10/6 Meters

• No radials • No traps • No ground • No tuning • Handles 1500 Watts

hy-gain's HF vertical antennas are the best built, best performing and best priced multibanders on the market today. Make full use of your sunspot cycle with the *PATRIOT's low angle* signal.

Instead of typical traps, hy-gain's resonators are placed in parallel not in series. End loading of the lower HF bands allows efficient operation with a manageable antenna height.

Introducing the *new* Hy-Gain *PATRIOT-PLUS* AV-680 with a fully tunable 3.5-4.0 MHz coverage!

With the AV-680, you get the same great traditional performance of the AV-640 on 6 through 40 Meters plus *top-to-bottom* capability on 80 and 75 Meters.

It's a great way to join new local nets and roundtables, explore the 75-Meter DX window, or add exciting digital frequencies to your operating repertoire.

Simply pick the band segment you wish to use, set the 80/75 Meter resonator, and you're in business.

• No ground or radials needed -- Effective counterpoise replaces radials, end fed with broadband matching unit.

• Automatic bandswitching -- Single coax cable feed, each band is individually tunable, wide VSWR bandwidth.

• Sleek and low-profile -- Low wind surface area, small area required for mounting, mounts easily on decks, roofs and patios.

• Built-to-last -- *Hy-gain's Patriot series antennas* boast a high wind survival due to its sleek, but sturdy frame. The matching unit is made from all *Teflon*[R] insulated wire.

• Top Loading: Parallel resonators -- best element efficiency

• Full ground independence: No unsightly wire add-on radials

• Top-to-bottom 3.5 to 4.0 MHz coverage: Pin-point fine-tuning accuracy for rock-bottom SWR on any frequency you choose.

• Single coax feed . . . and 100% automatic band selection!

• Low profile: Most compact ground-independent antenna!

• Legal-limit 1500-Watt PEP: Power handling on SSB/CW*

Adding 75/80 Meter coverage without compromising *it's classic performance*, ground independence, and tiny footprint was no small task. Yet, AV-680 size, weight, and wind loading are nearly identical to AV-640 with no unsightly radial extensions, traps, or top-heavy vertical structures to render it less attractive or unsafe.

Band selection remains fully automatic, all components handle legal power, and you won't need a tuner with your solid-state rig.

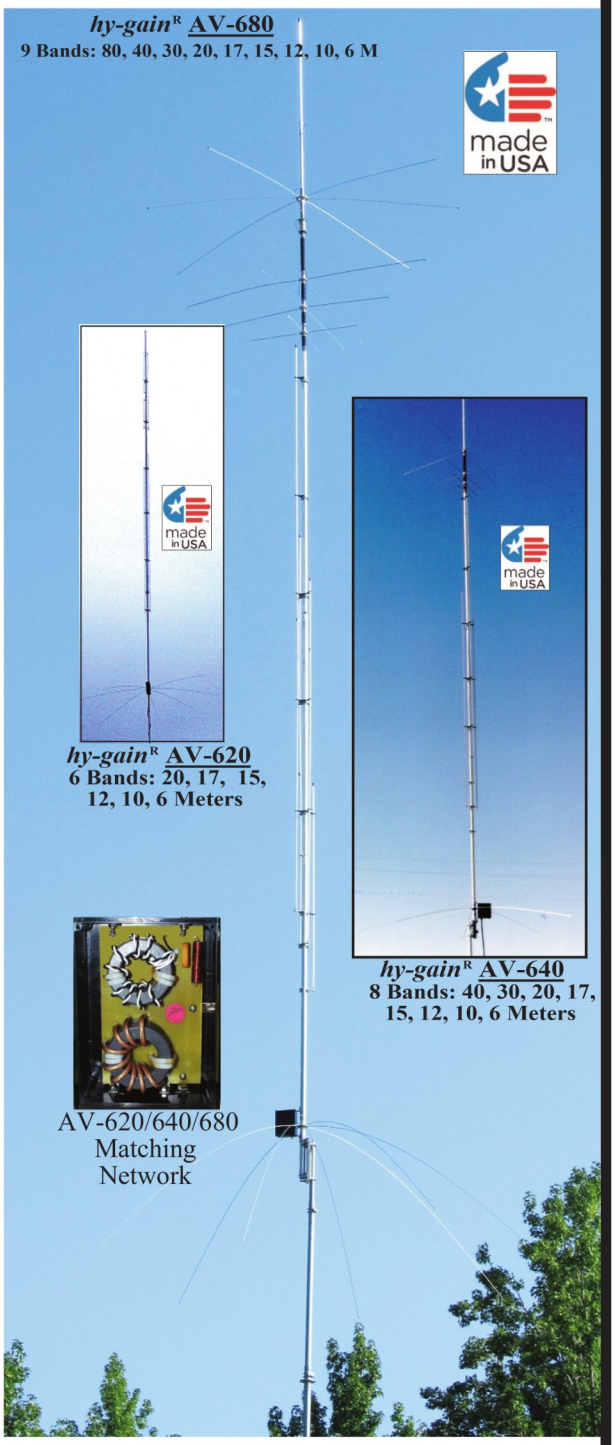
AV-680's *Expanded-Frequency Matchbox*™ circuit ensures low SWR on every band, along with an upgraded balun design that concentrates all of your power in the antenna where it belongs!

If space is a premium at your QTH and appearance matters, let *Hy-Gain*(R) open the door to one of ham radio's *most attractive and popular bands* with the new AV-680. This is your best choice for unparalleled versatility and band coverage from 6-80 Meters!

AV-640. Like AV-680 vertical antenna but just 25.5 feet tall and weighs only 17.5 lbs. It covers all bands 6 through 40 Meters with no traps, no coils, no radials yielding an uncompromised signal across all bands. AV-640 uses 1/4 wave stubs on 6, 10, 12 and 17 meters and efficient end loading coil and capacity hats on 15, 20, 30 and 40 meters.

AV-620. Like Hy-Gain's famous AV-640 Vertical Antenna but just 22.5 feet tall, weighs only 10.5 lbs. Covers all bands 6 thru 20 Meters with no traps, no coils, no radials yielding an uncompromised signal across all bands.

Optional Guy Wire Kit, AGK-8.


hy-gain[R] AV-680
9 Bands: 80, 40, 30, 20, 17, 15, 12, 10, 6 M
made in USA
hy-gain[R] AV-620
6 Bands: 20, 17, 15, 12, 10, 6 Meters
hy-gain[R] AV-640
8 Bands: 40, 30, 20, 17, 15, 12, 10, 6 Meters
AV-620/640/680 Matching Network

Model #	Bands	Max Power	Height	Weight	Wind Surv.
AV-620	6 Bands, 6-20	1500W	22.5 feet	10.5 lbs.	75 MPH
AV-640	8 Bands, 6-40	1500W	25.5 feet	17.5 lbs.	70 MPH
AV-680	9 Bands, 6-80	1500W*	26 feet	18.5 lbs.	65 MPH

*Intermittent duty CW.

hy-gain Rotators

. . . the first choice of hams around the world!

HAM-IV

HAM-IV

The most popular rotator in the world!

For medium communications arrays up to 15 sq. ft. wind load area. 5-second brake delay, Test/Calibrate function. Low temperature grease permits normal operation down to -30 degrees F. Alloy ring gear for extra strength up to 100,000 PSI for maximum reliability. *Precision* indicator potentiometer. Ferrite beads reduce RF susceptibility. Cinch plug plus 8-pin plug at control box. Dual 98 ball bearing race for load bearing strength and electric locking steel wedge brake prevents wind induced movement. North/South center of rotation scale on meter, low voltage control, max mast 2 1/16".

HAM-VI

with DCU-2

HAM-VII

with DCU-3

TAILTWISTER SERIES II

T-2X

For large medium antenna arrays up to 20 sq. ft. wind load. 5-second brake delay, Test/Calibrate functions. Low temp grease, tough alloy ring gear, indicator potentiometer, ferrite beads on potentiometer wires, weatherproof AMP connectors plus 8-pin plug at control, triple bearing race (138 ball bearings) for large load bearing, electric locking steel wedge brake, North/South center of rotation scale meter, low voltage control, 2 1/16" mast.

T-2XD2 with DCU-2

T-2XD3 with DCU-3

MSHD, $149.95. Above tower heavy duty mast support. Accepts 1 7/8-2 5/8" OD.

CD-45II

CD-45II

For antenna arrays up to 8.5 sq. feet mounted inside tower or 5 sq. ft. with mast adapter. Low temperature grease good to -30 F degrees. *New* Test/Calibrate function. Bell rotator design gives total weather protection, dual 58 ball bearing race gives proven support. Die-cast ring gear, stamped steel gear drive, heavy duty, trouble free gear train, North center scale, lighted directional indicator, 8-pin plug/socket on control unit, snap-action control switches, low voltage control, safe operation, takes maximum mast size to 2 1/16 inches. MSLD light duty lower mast support included.

HAM IV and HAM V Rotator Specifications	
Wind Load capacity (inside tower)	15 square feet
Wind Load (w/mast adapter)	**7.5 square feet**
Turning Power	800 in.-lbs.
Brake Power	**5000 in.-lbs.**
Brake Construction	Electric Wedge
Bearing Assembly	**dual race/96 ball bearings**
Mounting Hardware	Clamp plate/steel U-bolts
Control Cable Conductors	**8**
Shipping Weight	26 lbs.
Effective Moment (in tower)	**2800 ft.-lbs.**

TAILTWISTER Rotator Specifications	
Wind load capacity (inside tower)	20 square feet
Wind Load (w/ mast adapter)	**10 square feet**
Turning Power	1000 in.-lbs.
Brake Power	**9000** in.-lbs.
Brake Construction	Electric Wedge
Bearing Assembly	**Triple race/138 ball brngs**
Mounting Hardware	Clamp plate/steel U-bolts
Control Cable Conductors	**8**
Shipping Weight	31 lbs.
Effective Moment (in tower)	**3400 ft.-lbs.**

CD-45II Rotator Specifications	
Wind load capacity (inside tower)	8.5 square feet
Wind Load (w/ mast adapter)	**5.0 square feet**
Turning Power	600 in.-lbs.
Brake Power	**800 in.-lbs.**
Brake Construction	Disc Brake
Bearing Assembly	**Dual race/48 ball brings**
Mounting Hardware	Clamp plate/steel U-bolts
Control Cable Conductors	**8**
Shipping Weight	22 lbs.
Effective Moment (in tower)	**1200 ft.-lbs.**

Hy-Gain Programmable DCU-3
Digital Rotator Controller
DCU-3

Hy-gain DCU-3 Digital Controller lets you program 6 beam headings! Gives you full automatic or manual control of your hy-gain HAM or Tailtwister Rotators.

Press a memory button or dial in your beam heading or let *Ham Radio Deluxe* (or other) take control. Your antenna auto rotates precisely and safely to your DX.

DCU-3 automatically jogs your antenna free and safely unlocks it before rotating begins *(great for older rotators with "sticky" brakes)* then turns off your motor before reaching its final heading. Your antenna *gently* coasts to a stop before the brake re-locks -- greatly reducing damaging overshoots and extending rotator life. Simply press *Left* and *Right* buttons for *full*manual control and fine tuning. Bright blue LCD shows current, dialed-in and computer controlled beam headings in one degree increments and your call.

Calibrate lets you accurately match your display to your *true* beam heading. Has USB/RS-232 ports for computer control. Adjustable LCD sleep time. Field upgradeable firmware. 8.5Wx4.3H x9D".

110 VAC. Order DCU-3X for 220 VAC.

DCU-2 Digital Rotator Controller.

Like DCU-3, but less programmable memories. 110 VAC.

Order DCU-2X, for 220 VAC.

AR-40 --

For compact antenna ar and large FM/TV up to 3 square feet wind load a

Dual 12 ball bearing race. matic position sensor nev needs resetting. Fully aut matic control -- just dial a touch for desired location Solid state, low voltage control, safe, silent operation. 2 1/16" max mast. MSLD low mast included.

AR-40 Rotator Specifications	
Wind load capacity (inside tower)	3.0 square feet
Wind Load (w/ mast adapter)	**1.5 square feet**
Turning Power	350 in.-lbs.
Brake Power	**450 in.-lbs.**
Brake Construction	Disc Brake
Bearing Assembly	**Dual race/12 ball bearings**
Mounting Hardware	Clamp plate/steel bolts
Control Cable Conductors	**5**
Shipping Weight	14 lbs.
Effective Moment (in tower)	**300 ft.-lbs.**

Replace your Yaesu Rotator Controller

YRC-1

Hygain YRC-1 -- more features, more robust, far less prone to lightning damage. Costs less than repairing!

Easy-to-use -- dial in your beam heading and tap GOTO button, Exclusive 180 degree *AutoReversal*™ for fast longpath operation. All DCU-2 features. Bright blue LCD shows current, dialed-in, computer controlled beam headings, call. USB port for computer control. Extra heavy-duty AC power supply. Fast variable DC motor minimises overshoot. Intuitive menu. Field upgradeable. For Yaesu G-800/1000/2800/G450/650. AC or DC motors.

YRC-3. Like YRC-1 and adds 6 memories.

AR-500 Rotator/Controller

UHF/VHF/6-Meter, MFJ-1886 Rotator/Controller and Remote. For use of small VHF/UHF/6M, TV, FM, the MFJ-1886 wide band receiving loop and other lightweight ham antennas. Rotator is built in a weather proof one piece cast aluminum housing with precision metal gears, steel thrust bearings and automatic braking. Includes rotator, controller, remote, clamps, and all hardware. AR-500 remembers up to 12 directions even after a power outage! Use remote control or direct console. Displays location and relative position.

hy-gain /Spid Azimuth & Elevation Rotators

Super heavy-duty Rotators . . . ***Super strong Double Worm Gear Drive, Self-Braking, Extremely Quiet Motors, One Degree Position Resolution, Automatic Digital Controller.*** ***Up to . . .*** ***38 sq. ft. wind load . . . 8000 in./lbs. turning torque . . . 24,000 in./lbs. brake torque . . . 700 lbs. vertical load***

RAK-1 (RAK)

Includes RAK-1CU controller

Plate adaptor, mouse not included

Super *heavy-duty* RAK Rotators are designed with a simple *double worm gear* drive. This results in a super-strong ultra-reliable rotator system with inherent self-braking. Each includes a precision automatic digital controller.

Turning is powerful, smooth, precise and extremely quiet. The inherent self-braking action of its double worm gear drive positively stops it every time -- *won't move!*

It's fast! A high-torque DC gear motor rotates antenna 360° in just 60 seconds with 24V on motor. RAKs operate 12-24V AC/DC. Higher voltage the higher torque and faster turning speed -- a *unique RAK feature*.

RAK-1R. RAK-1 Rotator only.

RAK-1 Specs	RAK-1 @ 12 V	RAK-1 @ 18 V	RAK-1 @ 24 V
Wind Load Area	Approx. 30 sq. feet	Approx. 30 sq. feet	Approx. 30 sq. feet
Turning Torque,in-lbs	1400 in-lbs.	1800 in-lbs.	3240 in-lbs.
Brake Torque, in-lbs.	14,000 in-lbs.	14,000 in-lbs.	14,000 in-lbs.
Brake Construction	Double Worm Gears	Double Worm Gears	Double Worm Gears
Vertical Load	550 lbs.	550 lbs.	550 lbs.
Rotation Speed/*360 deg*	120 seconds	90 seconds	60 seconds
Precision	1 degree	1 degree	1 degree
Rotation Range	720 degrees	720 degrees	720 degrees
Rotator Weight	16 lbs.	16 lbs.	16 lbs.
Position Sensor	Reed Switch	Reed Switch	Reed Switch
Mast size	2.0/2.6 in. Top/Bot.	2.0/2.6 in. Top/Bot.	2.0/2.6 in. Top/Bot.

RAK-2 (BIG RAK)

Includes RAK-1CU controller

Plate adaptor, mouse not included

Simple to mount! Pipe mast mount on both ends allow coax cables to pass through the center of rotator and prevents cable tangling, damage. Optional adaptor plate mounting, *See accessories section below.*

It's precise! RAK-1C controller has one degree resolution and a large 3/4 inch 4-digit *easy-to-read* soft green LED digital readout. Sealed reed switch sensor technology gives reliable all-weather operation and super tight tolerances with minimal play.

Tough & durable! Heavy-duty construction uses 3/16" thick-wall steel pipe, ultra-durable steel housing.

RAK-2R. RAK-2 Rotator only.

RAK-2 Specs	RAK-2 @ 12 V	RAK-2 @ 18 V	RAK-2 @ 24 V
Wind Load Area	Approx. 38 sq. ft.	Approx. 38 sq. ft.	Approx. 38 sq. ft.
Turning Torque,in-lbs	>5000 in-lbs.	>8000 in-lbs.	Contact *Hy-Gain*(R)
Brake Torque, in-lbs.	24,000 in-lbs.	24,000 in-lbs.	24,000 in-lbs.
Brake Construction	Double Worm Gears	Double Worm Gears	Double Worm Gears
Vertical Load	>700 lbs.	>700 lbs.	>700 lbs.
Rotation Speed/*360 deg*	120 seconds	90 seconds	60 seconds
Precision	1 or 0.5 degree	1 or 0.5 degree	1 or 0.5 degree
Rotation Range	720 degrees	720 degrees	720 degrees
Rotator Weight	24 lbs.	24 lbs.	24 lbs.
Position Sensor	Reed Switch	Reed Switch	Reed Switch
Mast size	2.6/2.6 in. Top/Bot.	2.6/2.6 in. Top/Bot.	2.6/2.6 in. Top/Bot.

Econo Spid Rotator

RAU-1

Includes RAK-1CU controller

Smallest rotator provides excellent support for direct round mast mounting. Elevation rotator provides full azimuth capability. Ideal for light duty 3-4 element antennas, short boom beams and 2/6 Meter/70 cm beam antennas.

RAU-1R, $649.95. RAU Rotator only.

Elevation Rotator

REAL-1

includes controller

Elevation rotator has all specifications of the popular RAK-1 but is for moving antennas 180 degrees up or down. Package includes RAK-1CU controller.

REAL-1R. REAL Rotator only.

Azimuth-Elevation Rotators

RAS-1

Includes RAS-2CU Controller.

RAS-2

Plate adapters not included.

RAS-1 and BIG RAS (RAS-2) super heavy-duty *Azimuth-Elevation Rotators* are the same heavy-duty design as RAKs and includes the RAS-2C Controller.

RAS-2 is like RAS-1 below but has these super specifications: *Turning Power*: 5,000 in-lbs. torque@12V; 8000 in-lbs. torque@18V; *Brake Torque*: 24,000 in-lbs. at all voltages; *Vertical Load:* greater than 700 lbs; 44 pounds.

RAS-1R. RAS-1R rotator. **RAS-2R.** RAS-2 rotator.

RAS-1 Specs	RAS-1 @ 12 V	RAS-1 @ 18 V	RAS-1 @ 24 V
Wind Load Area	Approx. 30 square feet	Approx. 30 square feet	Approx. 30 square feet
Turning Torque in-lbs	1400 in-lbs.	1800 in-lbs.	3240 in-lbs.
Brake Torque, in-lbs.	14,000 in-lbs.	14,000 in-lbs.	14,000 in-lbs.
Brake Construction	Double Worm Gears	Double Worm Gears	Double Worm Gears
Vertical Load	550 lbs.	550 lbs.	550 lbs.
Rotation Speed *(360 degrees)*	120 seconds	90 seconds	60 seconds
Precision, Rotator Weight	1 degree, 29 lbs.	1 degree, 29 lbs.	1 degree, 29 lbs.
Rotation Range (Azi/Elev.)	360/180 degrees	360 azi/180 degrees	360/180 degrees
Position Sensor	Reed Switch	Reed Switch	Reed Switch
Mast size Bottom/Elevation	2.6 bottom/2.0 elevation	2.6 bottom/2.0 elevation	2.6 bottom/2.0 elevation

RAK-1CU. RAK RS232/USB Controller only.

RAK-2CU. RAS RS232/USB Controller only.

PTP-6. 6" pipe to flat plate adaptor for RAK, RAS.

PTPB-6. 6" pipe to flat plate adaptor for RAU.

MDS RC-1 Econo Digital Rotator Controller

for Hy-gain HamII, IV, T2X, Yaesu and many other common rotators

Get ALL these features at half cost of similar digital controllers!

The RC-1 is a *direct replacement* control box for Yaesu rotators and SA & DXA models and others.

It is priced *well below* the repair cost of many factory control boxes.

RC-1 uses slave power from existing Hams, AC controllers (RC1-G, RC1-H). Emergency and battery-power compatible for DC models.

Get *automatic* brake control on Ham rotators and *automatic* speed control on DC powered rotators.

Graphic bright blue LCD is large for easy visibility. Huge beam heading digits! *"Go-to"* button gives reciprocal heading, quick changes.

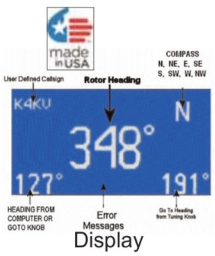
Computer-controlled via included USB (for RC1-Y) or serial ports to use favorite software. *Field upgradeable* firmware via serial port.

Rugged aluminum enclosure for maximum RF shielding is a compact 5 1/4Wx3 1/2Hx4 1/8D inches.

RC1-Y for Yaesu DC rotators, RC1-G for Yaesu AC, RC1-H for Hygain, RC1-P for Spid, Orion.

Made in USA!

RC-1



Display

RC1-H
Back of unit

hy-gain® HF BEAMS . . .

. . . are stronger, lighter, have less wind surface and last years longer

TH-11DX 11-element, 4.0 kW PEP, 10,12,15,17,20M

The choice of top DXers. With 11-elements, excellent gain and 5-bands, the super rugged TH-11DX is *the "Big Daddy"of all HF beams!* Handles 2000 Watts continuous, 4000 Watts PEP.

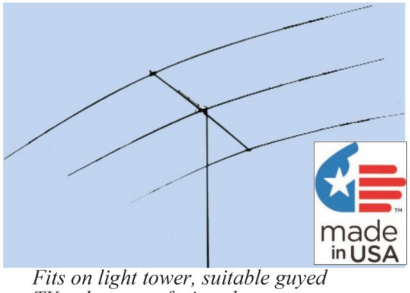
Every part is selected for durability and ruggedness for years of trouble-free service.

Features a low loss log-periodic driven array on all bands with monoband reflectors, BN-4000 high power balun, corrosion resistant wire boom support, hot dipped galvanized and stainless steel parts.

Stainless steel hardware and clamps are used on all electrical connections.

Compact 3-element 10, 15, 20 Meter Tri-Bander

For limited space . . . Installs anywhere . . . 14.75 ft turning radius . . . weighs 21 lbs . . . Rotate with CD-45II, HAM-IV



Fits on light tower, suitable guyed TV pole, or roof tri-pod.

TH-3JRS.

Hy-Gain's *most popular* 3-element 10, 15, 20 Meter tri-bander fits on most lots!

Same top performance as the full power TH3MK4 in a compact 600 watt PEP design.

Excellent gain and F/B ratio let *you* compete with the "big guns".

Tooled manufacturing gives you *Hy-Gain* durability with 80 MPH wind survival.

TH-7DX.
7-element, 1.5 kW PEP, 10, 15, 20 Meters

7-Elements gives the *highest average gain* of any Hy-Gain tri-bander! Dual driven for broadband operation without compromising gain. SWR less than 2:1 on *all* bands. Combined monoband and trapped parasitic elements give you an excellent F/B ratio. *Hy-Gain's* diecast aluminum, rugged boom-to-mast clamp, heavy gauge element-to-boom brackets, BN-86 balun. For high power, use BN-4000.

TH-5MK2.
5-element, 1.5 kW PEP, 10, 15, 20 Meters

Broadband *5-element* gives you outstanding gain. Separate air dielectric *Hy-Q* traps let you adjust for maximum F/B ratio on each band. Has *Hy-Gain's* exclusive *BetaMATCH*™, stainless steel hardware, compression clamps and BN-86 balun.

TH-3MK4.
3-element, 1.5 kW PEP, 10, 15, 20 Meters

Super popular! Gives *most gain for your money* in a full-power, full-size durable *Hy-Gain* tri-bander! Impressive average gain and whopping average front-to-back ratio. 1.5 kW PEP. 95 MPH wind survival. Fits on average lot -- turning radius is just 15.3 feet. 4-piece boom ideal for DXpeditions. Use CD-45II or HAM-IV rotators. *Hy-Gain BetaMatch*™ for DC ground, full power *Hy-Q*™ traps, rugged boom-to-mast bracket and mounts on 2"O.D. mast. Stainless steel hardware. Use with BN-86 balun.

TH-2MK3.
2-element, 1.5 kW PEP, 10, 15, 20 Meters

The 2-element TH-2MK3 is Hy-Gain's *most economical* full power (1.5kW PEP) full size tri-bander. Increases effective radiated power, hear far better! Ruggedly constructed, top-performing, compact 6' boom, tight 14.3 ft turning radius. Installs anywhere. Rotate with CD-45II or HAM-IV. Use BN-86 balun.

EXP-14.
4-element, 1.5 kW PEP, 10, 15, 20 Meters

Revolutionary 4-element compact tri-bander *can add 40 or 30 Meters!* 14-foot boom, tight 17.25 foot turning radius. Fits on roof tripod, mast or medium duty tower. *Patented* broadbanding *ParaSleeve*™ gives less than 2:1 VSWR. 1.5kW PEP. *Beta-MATCH*™ provides DC ground and eliminates static. BN-86 balun is included.

QK-710.30/40M option kit for EXP-14.

DB-1015.
7-element, 1.5 kW PEP, 10 & 15 Meters

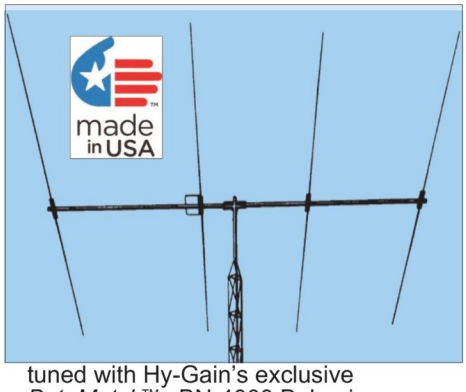
This dual band beam for 10 and 15 Meters incorporates *Hy-Gain's* superior mechanical design and has been computer optimized and range-tested for max performance. **DB-1015** features a 14 foot boom in 4 sections. Handles full legal power and has *Hy-Gain's* rugged boom-to-mast clamp.

DB-1217. Like DB-1015, but is dual band coverage for 12 and 17 Meters.

Model No.	No. of elements	avg gain dBi	avg F/B gain	MaxPwr watts PEP	Bands Covered	Wind sq.ft. area	Wind (*mph*) Survival	Boom (feet)	Longest Elem. (ft)	Turning radius(ft)	Weight (lbs.)	Mast dia O.D.(in.)	Recom. Rotator	Add-on kit
TH-11DX	7	11	8.6	1500	10,12,15,17,20	12.5	100	24	37	22	88	1.9-2.5	T2X	NO
TH-7DX	5	7	8.7	1500	10, 15, 20	9.4	100	24	31	20	75	1.5-2.5	HAM-IV	NO
TH-5MK2	7.4	5	8	1500	10, 15, 20	7.4	100	19	31.5	18.42	57	1.5-2.5	HAM-IV	NO
TH-3MK4	7.4	3	8	600	10, 15, 20	4.6	95	14	27.42	15.33	35	1.9-2.5	CD-45II	NO
TH-3JRS	25	3	8	1500	10, 15, 20	3.35	80	12	27.25	14.75	21	1.25-2.0	CD-45II	NO
TH-2MK3	22	2	5.5	1500	10, 15, 20	3.25	80	6	27.3	14.3	20	1.25-2.5	CD-45II	NO
EXP-14	22	4	8	1500	10,15,20 opt. 30/40	7.5	100	14	31.5	17.25	45	1.9-2.5	HAM IV	Yes, 30/40
DB-1015	25	15-20	25	1500	10, 15	6.7	115	14	29.5	16.3	36	1.9-2.5	HAM IV	NO
DB-1217	25	27	25	1500	12, 17	6.7	115	14	29.5	16.3	36	1.5-2.5	HAM IV	NO

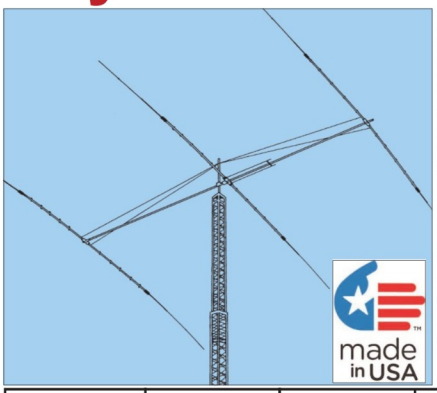
Hy-Gain Long Johns HF Monobanders

LJ-105CA.10 Meters, 5 elements, Exclusive 50 Ohm *BetaMatch*™. Excellent DC Ground. Stainless steel hardware and clamps. BN-4000 Balun recommended.
LJ-155CA. 15/12 Meters, Five Elements, Exclusive 50 Ohm *BetaMatch*™. Excellent DC Ground. Stainless steel hardware and clamps. Includes 12 Meter setting. BN-4000 Balun recommended.
LJ-205CA. 20/17 Meters, Five Elements. Exclusive 50 Ohm *BetaMatch*™. Excellent DC Ground. Stainless steel hardware and clamps. BN-4000 Balun recommended. Manual has setting for both bands.
LJ-204BA. 20/17 Meters, Four Elements. Exclusive 50 Ohm *BetaMatch*™. The LJ-204BA has a tiltable cast aluminum boom-to-mast clamp, heavy gauge machine-formed element-to-boom brackets and stainless steel hardware and clamps. BN-4000 Balun is recommended. Manual has setting for both bands.
LJ-103BA. 10 Meters, Three Elements. Feeds with 50 Ohm coax, comes factory pre-tuned with Hy-Gain's exclusive *BetaMatch*™. BN-86 balun recommended. Includes stainless steel hardware and clamps.
LJ-153BA.15 Meters, 3 elements. Feeds with 50 Ohm coax, *BetaMatch*™, 5.7 dBd gain. BN-4000 Balun recommended. Stainless steel hardware and clamps.
LJ-203BA.20 Meters, Three elements on a 16 foot boom. The LJ-203BA feeds with 50 Ohm coax, factory pre-tuned with Hy-Gain's exclusive *BetaMatch*™. BN-4000 Balun is recommended. Stainless steel hardware and clamps. Tiltable, cast aluminum boom-to-mast bracket.



Model #	Gain (dBi)	F/B Max	Max Power	Boom Size	ele. length	turn Radius	Mast diam.	Surface	Wind
LJ-105CA	10.8 dBi	36 dB	1500 W PEP	24 feet	18 feet	15 feet	1.9-2.5 in.	3.9 sq. feet	100 m.p.h.
LJ-155CA	9.8 dBi	25 dB	1500 W PEP	26 feet	25 feet	17 feet, 6 in.	1.9-2.5 in.	5.2 sq. feet	88 m.p.h.
LJ-205CA	8.7 dBi	30 dB	1500 W PEP	34 feet	36 feet	25 feet	1.9-2.5 in.	9.0 sq. feet	99 m.p.h.
LJ-204BA	8.2 dBi	28 dB	1500 W PEP	26 feet	36 feet, 6 in.	22 feet, 6 in.	1.9-2.5 in.	7.3 sq. feet	100 m.p.h.
LJ-103BA	7.9 dBi	24 dB	1500 W PEP	8 feet	18 feet, 7 in.	10 feet, 2 in.	1.625-2.0 in.	2 sq. feet	107 m.p.h.
LJ-153BA	7.9 dBi	25 dB	1500 W PEP	12 feet	24 feet, 11"	14 feet, 3 in.	1.9-2.5 in.	3 sq. feet	80 m.p.h.
LJ-203BA	7.3 dBi	23 dB	1500 W PEP	16 feet, 6 in.	37 feet	20 feet	1.9-2.5 in.	5.4 sq. feet	80 m.p.h.

Hy-Gain Discoverer Series Antennas



DISCOVERER 71.
Covers 40/30 Meters. **Rotatable** dipole has low weight and wind surface area so it easily fits most existing beam installations. Tuned to 30 or 40 Meters with a front-to-side ratio of 30 dB for a fast, expansion of band capability. Feed 50 Ohm coax. Pre-formed mast clamp.

DISCOVERER 72.
Covers 40 Meters. **This** two-element 40 Meter beam has a unique hairpin loading system. It delivers superior performance. Feeds with 50 Ohm coax and comes factory pre-tuned with Hy-Gain's exclusive *BetaMatch*™. Tiltable boom-to-mast bracket and stainless steel hardware is included. Hy-Gain high power BN-4000 balun is recommended.

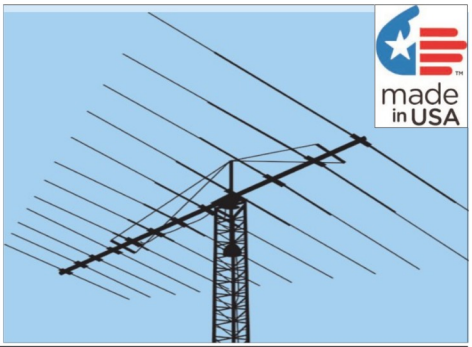
DIR-73K.
Add-On 30/40 Meter Director Kit
Converts the fantastic Discoverer 72 into a three-element beam. Amazingly, it's still all on a 35 foot boom, outperforming the other brands that are much larger arrays. Discoverer 72 with the director kit installed fits easily on medium duty towers such as HG-52SS, saving both cost and space. HyGain offers wide bandwidth and Hy-Q efficiency without coils. Handles legal power limits.

Model #	Gain (dBi)	F/B Max	Max Power	Boom size	element size	turn Radius	Mast diam.	Surface	Wind
DIS-71	6.5 dBi	35 dB	1500 W PEP	2.7 feet	45 feet	22.5 feet	1.9-2.5 in.	2.7 sq. feet	100 m.p.h.
DIS-72	6.5 dBi	15 dB	1500 W PEP	22.6 feet	44.8 feet	25 feet	1.9-2.5 in.	6.0 sq. feet	80 m.p.h.
DIR-73K	7.5 dBi	26 dB	1500 W PEP	35 feet	45.7 feet	28.9 feet	1.9-2.5 in.	9.0 sq. feet	80 m.p.h.

Hy-Gain HF Log Periodic Antennas

LP-1009A. LP-1009A for UHF connector. LP-1009AN for "N" connector. *10/12/15/17/20 Meters*
Covers the complete 13-30 MHz HF spectrum under a 2:1 VSWR. Built to commercial specifications, it is used by MARS, monitoring, marine and government radio stations around the world and now it's available to Hy-Gain customers. Discerning ham operators will appreciate its performance, ease of use. Imagine all that spectrum coverage with just one feedline. Exclusive 2KW BN-4000 current type balun included. Use T2X Tailtwister or HDR-300A rotators.

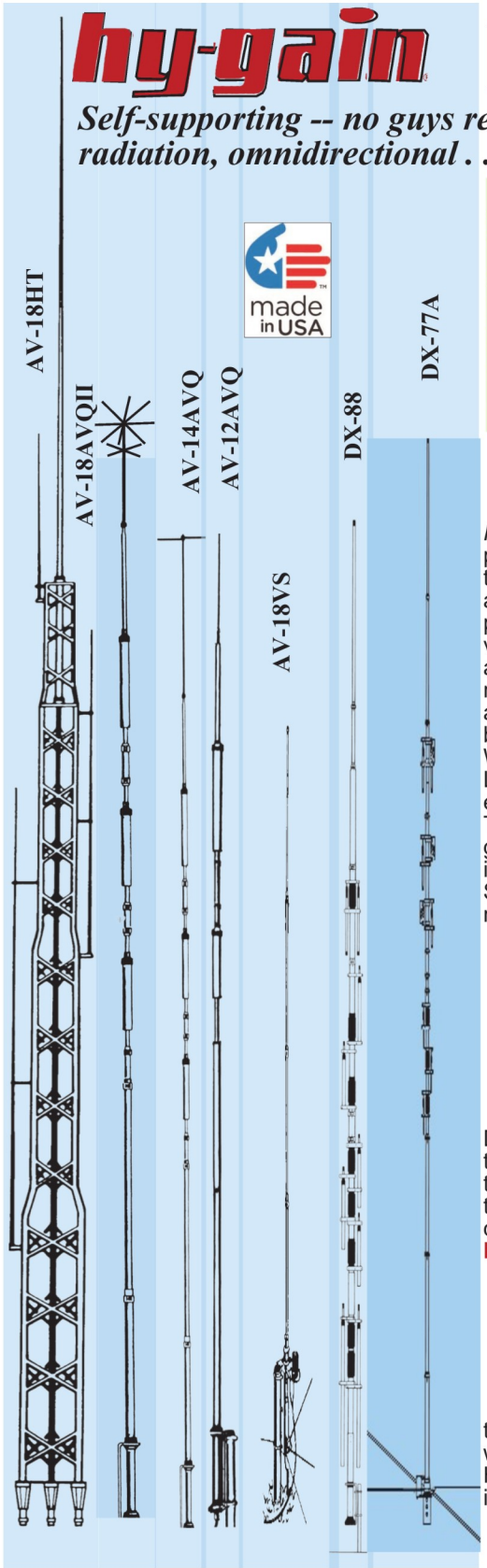
LP-1010A. LP-1010A for UHF connector. LP-1010AN for "N" connector. Covers *10-30 MHz*
(10, 12, 15, 17, 20, and 30 Meters)
There are only a few antennas that offer as much HF frequency coverage as the LP-1010A. Like the LP-1009A, this antenna is built to commercial standards using stainless steel hardware and having a wind survivability of 93 mph. Rotatable with use of T2X or HDR-300A rotators.



Model #	Gain (dBi)	F/B Max	Max Power	Boom size	ele. length	turn Radius	Mast diam.	Surface	Wind
LP-1009A/N	7.3 dBi	22 dB	1500 W PEP	27 feet	39 feet	22.5 feet	1.9-2.5 in.	12.5 sq. feet	103 m.p.h.
LP-1010A/N	7.0 dBi	22 dB	1500 W PEP	36 feet	48 feet	28.5	1.9-2.5 in.	16 sq. feet	93 m.p.h.

hy-gain HF VERTICALS

Self-supporting -- no guys required . . . remarkable DX performance -- low angle radiation, omnidirectional . . . 1500 Watts . . . Low SWR . . . 2 year limited warranty



All hy-gain multi-band vertical antennas are entirely self supporting -- no guys required. They offer remarkable DX performance with their extremely low angle of radiation and omnidirectional pattern.

All hy-gain vertical antennas handle 1500 Watts PEP SSB, have low SWR, automatic band-switching (except AV-18VS) and include a 12-inch heavy duty mast support bracket (except AV-18HT). Heavy duty, slotted, tapered swaged, aircraft quality aluminum tubing with full circumference compression clamps is used for radiators. Includes all stainless steel hardware. Recessed SO-239 prevents moisture damage.

Hy-gain verticals go up easily with just hand tools and their cost is surprisingly low. All hy-gain Verticals feature a two year limited warranty.

AV-18HT.

10/12/15/20/40/80 Meters
17 & *160 Meters optional*

Standing 53 feet tall, the famous *Hy-Gain HyTower* is the world's best performing vertical! The AV-18HT features automatic band selection achieved through a unique stub-decoupling system which effectively isolates various sections of the antenna so that an electrical 1/4 wavelength (or odd multiple of a 1/4 wavelength) exists on all bands. Approximately 250 kHz bandwidth at 2:1 VSWR on 80 Meters. With the addition of a base loading coil LC-160Q or MK-160A, it also provides exceptional 160 Meter performance. The 24 foot tower is all rugged, hot-dip galvanized steel and all hardware is iridited for corrosion resistance. Special tilt-over hinged base for easy raising and lowering. 53 feet, 114 lbs.

MK-17. 17 Meters add-on Kit.
LC-160Q. 160 Meters loading coil.
MK-160A. 160 Meters, 1500 Watts.

DX-88.

10/12/15/17/20/30/40/80 Meters
160 Meters optional.

All bands are *easily* tuned with the DX-88's *exclusive* adjustable capacitors. 80 and 40 Meters can even be tuned from the ground without having to lower the antenna. Super heavy-duty construction. 25 feet, 18 pounds.

DX-88 OPTIONS:

KIT-160-88. 160 M add-on kit.
GRK-88. Ground Radial System.
RRK-88. Roof Radial System.

DX-77A.

10/12/15/17/20/30/40 Meters

***No** ground radials required!* Off-center-fed Windom has 55% greater bandwidth than competitive verticals. Heavy-duty tiltable base. Each band independently tunable. 29 feet, 25 lbs.

AV-18AVQII.

10/15/20/40/80 Meters

The classic is back with improved design including three separate air dielectric Hy-Q™ traps for 10 through 80 Meters --1.5 kW PEP. A loading coil and an effective radiator is used for 80 Meters --1kW PEP.

AV-14AVQ. 10/15/20/40 Meters

The Hy-Gain AV-14AVQ uses the same trap design as the famous Hy-Gain Thunderbird beams. Three separate air dielectric Hy-Q traps with oversize coils give superb stability and 1/4 wave resonance on all bands. 18 feet, 9 pounds.

MK-80. 80 Meter add-on for AV-14AVQ. Easy install. Includes pre-wound loading coil, hardware.

AV-18VS. 10/12/15/17/20/30/40/80 M

High quality construction and low cost make the AV-18VS an exceptional value. Easily tuned to any band by adjusting feed point at the base loading coil. Roof mount with AV-14RMQ, $99.95. 18 ft, 4 lbs.

AV-12AVQ.

10, 15, 20 Meters

The AV-12AVQ also uses Thunderbird beam design air dielectric traps for extremely Hy-Q performance. This is the way to go for inexpensive tri-band performance in limited space. 13 ft., 9 lbs. Roof mount with AV-14RMQ kit, $119.95.

AV-14RMQ.

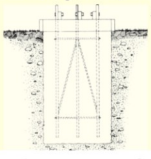
Roof Mounting Kit

AV-14RMQ roof mounting kit provides rugged support for Hy-gain models AV-18VS, AV-14AVQ, AV-12AVQ. Includes base plate, mast, radial/guy wires and mounting hardware.

Model #	Add-on Kit	Bands	Max Power	Height	Weight	Wind Surv.	Rec. Mast
AV-18HT	YES	10,15,20,40,80	500 W PEP	53 feet	**114 pounds**	75 MPH	------
AV-14AVQ	YES	**10,15,20,40**	**1500 W PEP**	**18 feet**	**9 pounds**	80 MPH	**1.5-1.625"**
AV-12AVQ	NO	10/15/20 M	1500 W PEP	13 feet	9 pounds	**80 MPH**	1.5-1.625"
AV-18VS	NO	**10 - 80 M**	**1500 W PEP**	**18 feet**	**4 pounds**	**80 MPH**	**1.5-1.625"**
DX-88	YES	10 - 80 M	1500 W PEP	25 feet	24 pounds	75 mph no guy	1.5-1.625"
DX-77A	NO	**10 - 40 M**	**1500 W PEP**	**29 feet**	**25 pounds**	**60 mph no guy**	**1.5-1.625"**
AV-18AVQII	NO	10,15,20,40,80	500WPEP	18 feet	12 pounds	70 mph guy	1.5-1.625"

Hy-Gain Tower Bases

Specially designed for *Hy-gain* crank-up towers. Complete with base hinge and foundation welded steel-cage. Specify tower model. ***Must** be shipped by truck, call for quote.



Model#	Tower	Price	Weight
TB-37	HG-37SS	CALL	50 lbs.*
TB-52	HG-52SS	CALL	80 lbs.*
TB-54	HG-54HD	CALL	90 lbs.*
TB-70	HG-70HD	CALL	102 lbs.*

Hy-Gain (R) 160-6 Meters Self-Supporting Vertical Antenna

Full 1500 Watts, 43 feet, includes base mount, great for stealth

Operate all bands 160-6 Meters at full 1500 Watt with this self-supporting, 43 feet high performance vertical!

Assembles in less than an hour. Low profile blends in with the sky and trees -- you can barely see it . . .

Exceptional Performance

The entire length radiates to provide exceptional low angle radiation 160-20 Meters and very good performance on 17-6 Meters.

You can shorten it by telescoping it down for more effective low angle radiation on higher bands.

Just talk with automatic tuner!

A wide-range automatic or manual antenna tuner *at your rig* easily matches this antenna for all bands 160-6 Meters.

There's no physical tuning adjustments on the antenna -- you simply put it up! **Includes** ATB-65 base mount. *Right.*

Optimized balun allows *direct coax feed* with negligible coax loss (typically less than 1/2 dB 60-6 Meters and less than 1 dB 160-80 Meters with good quality, low-loss coax).

Extremely low wind loading

With just 2 square feet wind load, the AV-6160 has the lowest wind-loading and lowest visibility of any vertical antenna!

Its 2-inch O.D.and .120 inch thick walled tubing bottom section makes it incredibly strong.

Just 20 lbs., uses super-strong *6063 aircraft aluminum tubing.* Stainless steel hardware.

Assembles in an hour

Ground mounting lets you hide antenna base in shrubbery. Requires ground system -- at least one radial. More extensive ground systems work even better. Optional **GRK-6160.** All-band ground radial kit. *See bottom right.*

Stealth Operation

Low profile. Hide behind trees, fences, buildings, bushes. Use it as a flagpole. It easily telescopes down during the day.

64', 11-Section Telescopic Aluminum Mast

ATM-65

Includes one size of each slitted tube listed above and ten hose clamps. This is a *super-strong* heavy duty telescoping MAST, not a flimsy pole! Mast is made of .120 inch *thick wall* aluminum tubing. ATM-65 is 64 feet fully extended and 6 feet collapsed without clamps. Guying is required if mast is extended beyond 30 feet. Top section is .625" OD. Bottom section is 2 inches OD x .120 wall.

Base Mount for Fiberglass and Aluminum Masts

ATB-65. Complete base assembly kit with mounting plate, insulators, hardware, SO-239, etc. for fiberglass and aluminum masts. Fits up to 2.0" OD masts.

1.5kW 80/160M high-efficiency Matching Network

AV-6110

Improves efficiency on 160/80 Meters for the popular 43-foot all band vertical antennas. Eliminates SWR-related coax and unun mismatch losses. Fed with a 1:4 unun, 43' antennas have a reasonable compromise SWR on 60-10m. However, at 160/80 Meters it is virtually impossible to match this antenna because of the low radiation resistance. If you are using low loss coax, you will lose much power in the coax and unun due to bad antenna mismatches. Installed at the base of the 43' vertical, AV-6110 will significantly eliminate these losses and put 160 and 80 Meters back within the tuning range of the tuner inside the shack. Includes high-voltage insulated base tube, remote power injector with switch for 160, 80 Meters and off positions. Handles 1.5kW. Matching box mounted in a rugged, weather-resistant PVC housing, Fits at 43 foot antenna base, just 3Wx16Hx3D inches.

***600 Watts* 80/160 Meter Matching Network**

AV-6108. Like AV-6110. 600W-80M, 300W-160M.

Universal Vertical Tilt Base

ATB-75

A unique design allows this tilt base to fit most vertical antennas with or without a base bracket. Pre-punched hole makes it easy to mount many different type of verticals. Fits AV18VS, 14VS, 18AVQ, AV-680/640/620, AV-6160, R8/R9, MFJ-1796/1798/2990 and others with tube bases or masts up to 2 1/4" OD. Mount one side of the tilt base to the mast and the other to the base. *No climbing a ladder -- raise up/down easily before severe weather by yourself* -- just walk it up or walk it down. Ground radial holes also provided. 1/8" thick aluminum. Includes all U-bolts, mast saddles and stainless steel nuts and bolts.

160 Meter Tuner Range Extender for 43' Verticals

AV-6104

43" vertical antennas are very popular. However, on 160M, they have a very high reactance and high voltage at the feedpoint. Tuning with a tuner results in max efficiency 80-10M, but conditions at 160M present a challenge for tuners. To get around this problem, add a range extender to the base of the antenna to increase 160M matching. Reduces reactance and puts antenna in range of the auto or manual tuner. Damaging high-voltage currents are reduced to prevent tuner damage. 1.5 kW. Weather-resistant PVC, ceramic feedthrus for in/out. 3 1/2Wx3 1/2 Hx11D". Use MFJ-998RT/MFJ-994BRT or other tuners.

AV-6102. Like AV-6104, 300 Watts, 5-way binding posts for in/out. 3 1/2W x3 1/2Hx7D". Use MFJ-926B/927/993BRT auto tuners or manual tuners.

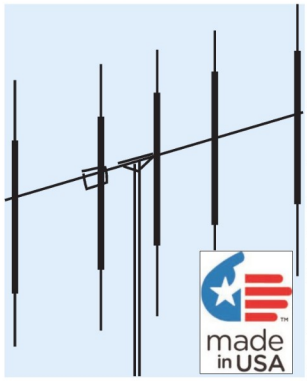
All-band Ground Radials

GRK-6160

All-band ground radial system for the AV-6160 and other verticals requiring a radial system. Convenient and effective, it provides the necessary return path for ground currents to reduce ground losses. Consists of 2 sets of 4 radial wire assemblies giving a total of eight 14 foot radial wires. Each has a 1/4 inch ring lug for attaching to the antenna ground point. Each end of the radial wires has a solder lug for staking at the wire end.

Hy-Gain LongJohn 10/12 Meter Beams

LJ-115 . . . 5-Elements . . . 9.7 dB Forward Gain . . .



LJ-115

Hygains LJ-115 is a five element 10/12 Meter beam antenna designed to give maximum performance.

Whopping forward gain of 9.7 dB and, front-to-back ratio 25 dB.

LJ-115 is constructed of the best quality aluminum tubing and uses a *swaged* (tapered) design for max strength, lightest weight. It boasts an 80 MPH wind survivability.

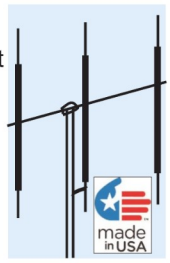
This powerful beam features our exclusive *Beta-Match*™ which matches the antenna to a 50 Ohm feedline and puts driven element at DC ground for *noise-free* operation, lightning protection.

LJ-115 is easily rotated with a Hygain rotator for 360 degree coverage. *See* popular Hygain models AR-40 and CD-45II. Feed this antenna with any standard 52 Ohm coaxial cable.

Expect 1.05:1 SWR at resonance if antenna is mounted in the clear and care is taken in feedline attachment. SWR will remain below 1.5:1 over the entire 10 Meter frequency range.

LJ-113 . . . 3-Elements . . . 8.2 dB Forward Gain . . .

ANTENNA SPECIFICATIONS		
	LJ-115	**LJ-113**
Forward Gain	9.7 dB	8.2 dB
Power Multiplication Factor	9.3	6.6
Front-to-Back Ratio	25 dB	20 dB
Typical SWR	1.05:1	1.05:1
Coaxial Feedline	52 Ohms	52 Ohms
Boom Length	18 feet	8 feet
Longest Element	18 feet	18 feet
Mast Diameter	1⅝ inch	1¼ to 1⅝ inch
Maximum Wind Survival	80 MPH	80 MPH
Net Weight	18.9 lbs.	6.8 lbs.



LJ-113. Similar to LJ-115 but has three elements and a much smaller boom, 8 feet. It still delivers an amazing 8.2 dB forward gain and great front-to-back ratio.

Hy-Gain 20/15/10/6 Meter Rotatable Dipole

TH-1

TH-1 is a full-size *high-effiency* 26', 20-15-10-6 Meter full legal limit rotatable dipole that is super low-profile -- almost invisible from across the street! With a 13-foot turning radius and tiny 9 lb. weight, it fits on small roofs, apartments and condos -- easily turned by a lightweight TV rotator like *Hy-Gains*® AR-500.

Mount it in the attic for antenna restricted neighborhoods. *But it is no wimp!* Its bi-directional pattern can help reduce QRM and/or noise while maximizing your signal in the directions that you want -- so you can work some real DX. Handles up to a full 1500 Watts SSB/CW on all HF bands and Six Meters.

Hy-gain 6-Meter *Add-On* Dipole Kit

MK-6

Adds 6-Meter capability to most HF yagis or rotatable dipoles. Mounted to driven element of most HF rotatable dipoles or HF single-band/multi-band beams without affecting antenna's performance. Handles 1.5 kW. Adds less than 1 lb. weight and essentially no increase in wind-loading to the existing antenna. HF beam must be direct-fed with coax, or 1:1 balun handling 1.5 kW. Power handling may be limited by installed HF beam balun.

Hy-Gain 5/8 Wave 10/12 Meter *Super-Penetrator*™ Vertical Antenna

SPT-500

This fantastic *true full-size* 5/8 Wave 10/12 Meter vertical antenna from Hy-Gain was *a legend in the 70's* . . . now it's back to prove its legendary status once again!

A Full-size radiator with lower radiation angle concentrates power closer to the ground, where you want it. Measures 22 foot, 9.5 inches. Larger diameter, heavy wall ply-tubular construction makes the new *Super-Penetrator*™ the absolute top omnidirectional antenna around! Four full-length radials and special machine-formed brackets give extra talk-power and overall strength.

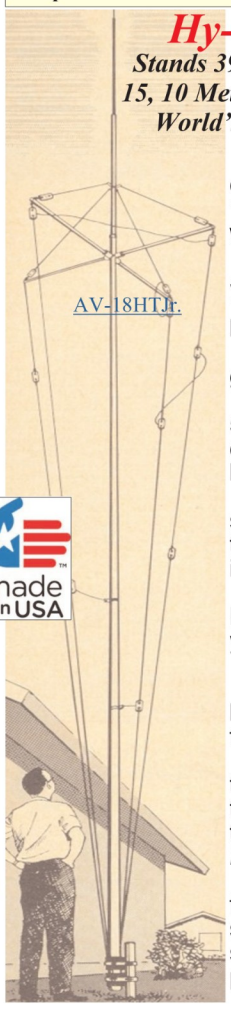
Electrical performance has increased to a new standard by use of longer radiator and *double-matching tuning* with linear phasing techniques to provide low SWR and more radiated energy. *Double-matching* provides DC path to ground to drain off precipitation static, gives an extremely low noise antenna that is capable of high power handling.

SPT-500 is specifically designed to accept AM-FM-SSB-DSB signals with low loss. 1.5kW. Illegal for 11 Meters use.

SPT-500 ANTENNA SPECIFICATIONS	
Gain (dB)	5.3 dB
SWR ***(at resonance)***	Less than 1.2:1
Nominal input impedance	52 Ohms
Lightning Protection	DC Ground
Height	Twenty-two feet, six inches
Radial Length	Eight feet nine inches
Wind (Survival)	80 MPH
Accepted mast size	1¼ to 1⅝ inches OD

Hy-Gain HyTower-Jr ™

Stands 39 feet tall . . . Full 1/4 Wave on 40, 20, 15, 10 Meters . . . Cage loading on 80 Meters . . . World's Second Best* Vertical Antenna . . .



AV-18HTJr.

Standing a tall 39 feet with *full-size* elements and rated at 5 KW, the AV-18JR *Hy-gain HyTower-Jr.*™ is the world's *second best** performing vertical!

Stub-decoupling is used to give *full-size* quarter wave radiators on 40, 20, 15, 10 Meters with super efficient cage loading on 80 Meters.

***HyTower-Jr*™** has almost no losses -- ground system determines efficiency.

It is automatic bandswitching, fed with 50 Ohm coax and has low SWR over an exceptionally wide bandwidth with SWR less than 1.2 at resonance.

The main radiator is aircraft high-strength, heavy walled, 2-inch aluminum tubing swedged at the top. Self-supporting in winds up to 40 MPH.

Mounts on 1¼ inch plumber's pipe. Heavy duty components will give you years of trouble-free operating pleasure.

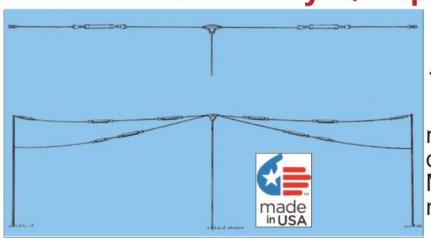
Requires good ground system.

***The** famous 53' *Hy-gain HyTower*™ is legendary. It's the premier, best performing vertical in the world -- bar none!

At less than half the price with nearly the *same* performance and based on the *same* principles, the *HyTowerJr*™ is the poor man's version of its father *HyTower*.

Of course, *Junior*™ doesn't have its father's rugged hot-dipped galvanized steel tower and construction! But it is a super performer for sure at half the price!

HF Multiband Hy-Q trap DOUBLETS



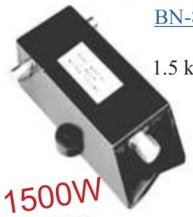
DP-2BDQ DP-5BDQ

40/80 Meters 10-80 Meters

DP-2BDQ is a multiband Hy-Q trap doublet for 40/80 Meters, 101 feet maximum length of dipole.

DP-5BDQ. 80-10 Meters, maxium length of dipole is 94 feet. Hy-Gain DP-2BDQ and DP-5BDQ are Hi-Q trap doublets designed for horizontal or inverted "V" rated at legal power. Both feature individually pretuned matched traps for each band. 50 Ohm feed. Coaxial cable not included. Both handle 2 kW PEP.

Heavy Duty HY-GAIN BALUNS



BN-86

1.5 kW

1500W

BN-86 is a broadband 50 Ohm ferrite balun. Useable from 3-30 MHz. **Rated** at 1500 Watts. The BN-86 is recommended for all HF Yagi antennas. Provides improved front-to-back ratio. **Includes** clamp to bolt to boom, has SO-239 connector.

4000W

BN-4000 series are broadband 50 Ohm Beam current baluns. They are potted to seal out moisture. Each handles 4000 Watts. Range is 1 MHz to 54 MHz. SO-239 connector.

BN-4000D. For Dipoles.

BN-4000B
4000 Watts

made in USA

BN-4000N. With "N" connector.

Hy-gain Antenna Feedpoint Pig Tail

APT-2

Hy-gain's Antenna Feedpoint *Pig Tail*cable has 2-foot length for connecting between antenna and your coaxial feedline. Has SO-239 connector on one end and 2 (#10) ring terminals on the other end. Provides an easy and reliable connection for your feedline with PL-259 connector to your antenna feed point. Use with Hy-gain *VB series* beams and other antennas without an SO-239 feed point.

Hy-Gain Lightning Surge Protector

LA-2 *1.5kWatts*

Safe-guard your expensive equipment from static electricity and lightning induced surges on 50 Ohm coaxial line. Hy-Gain's *Guardian Angel*™ Lightning Surge Protector has an *Ultra-fast* gas discharge tube safely shunts up to 5000A of peak impulse current harmlessly to an independent ground. SWR less than 1.1:1. Less than 0.1 dB loss. Use to 1000 MHz. 1.5 kW PEP. *Does not* protect against direct lightning hit. **MFJ-97H.** Replacement gas discharge tube.

Hy-Gain(R) *Guy-Wire Gripper*

GWH-1

Hy-gain's *Guy-Wire Gripper* turns the horrendous job of tightening guy wires into a easy one man operation. This wonder tool works together with a *"come-a-long"* cable puller to hold/stretch guy wire or cable. Spring loaded for easy operation. Use for guy wire or cable up to 1/4" diameter.

Hy-Gain(R) Arrowpoint Anchor

APA-3

Hy-gain's Arrow Point Anchor is made of high quality 13 gauge steel. 3-inch *Arrow Point Anchor* has 36" integral swiveling 1/8" steel cable. Superior pullout resistance up to 2000 lbs. Use this *ArrowPoint anchor* to secure antennas, towers, tarps, trees, carports, flagpoles and much more.

HY-GAIN INSULATORS FOR MULTIBAND DIPOLE ANTENNA

C-1. Center Insulator for multiband dipole antenna.

E-1. 7" End Insulator for Multiband doublet antenna. 5/16" holes. Set of 2.

C-1C. Like C-1, but has SO-239 antenna connector.

E-2. One. E-26. *6-pack.* Glazed ceramic. Won't break, arc over or melt under power. 5/16" holes.

Hy-Gain 4 Foot Ground Rod

GR-1

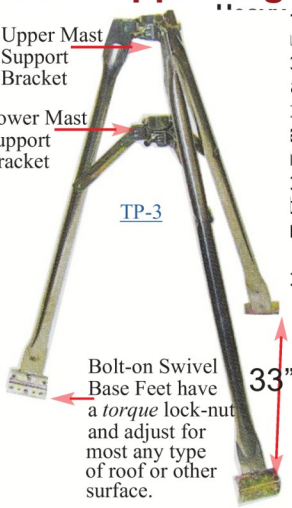
Durable 4' *copper bonded* steel earth ground rod is a tough 3/8" diameter. *Sharp* pointed end is easy to drive into the ground. *Special screw-clamp* makes it easy to attach ground wires. GR-1 will help you bleed off static, RFI and prevent RF hot spots. Use several to form RF ground for long wire antennas.

Water pipe/tower leg ground clamp

GC-1

Clamps securely to water pipe or ground rod. Fits pipe/rod 1/2-1". Wire hole accepts wire to 9/32" diameter. Swiveled 1/2 section for easy removing. UL/CUL listed.

Self-Supporting Ant. Mast Tripod


Upper Mast Support Bracket
Lower Mast Support Bracket
TP-3
Bolt-on Swivel Base Feet have a *torque* lock-nut and adjust for most any type of roof or other surface.
33"

-duty 3-foot tripod self-sup-sts to 1.75" diameter and port most Hy-Gain vertical as. Great for ground/roof ing. Doesn't include mast. **atures** a universal mast p and bottom support cket that helps stabilize your tenna system. TP-3 will fold r easy storage and travel.

Bolt-on *swivel* feet adjust to any ype roof or surface. It is quick and easy to put up an antenna using screws in the three base feet. *And . . .* est assured that your tower is securely anchored for trouble-free service. A *torque* lock-nut is used for the bolt-on feet.

TP-3 is hot-dip galvanized for long-lasting protection from the outdoors. Get your antenna *up-in-the-air* where it belongs!

HG-5. Five Ft. Galvanized Mounting Pipe 2" OD, 16 gauge Galvanized Steel Mast Pipe. Use for ground mount pipe or rotator mast.

AGK-8. 3-Point Guy Wire Kit For vertical antenna or antenna mast. Has guy brackets, thimbles, galvanized steel stakes and 150' Danscord rope. All you need to secure antenna/mast safely for high winds.

Pipe-to-Pipe Mast Mount Kit

Heavy Duty extruded-aluminum clamp assembly with 5/16x6" SS bolts secures tubing either in-line or at 90-degrees. Support large Yagis without drilling the boom, attach masts to railings, extend supports, or add cross-sections to verticals for extra bands. Eight clamps and stainless steel hardware. Fits mast pipe 1-2". Max combined size 4". Hold up to 10 pounds, 5 feet from center.

A nylon B polyester

Wire Antenna Installation Rope. MFJ Nylon or Polyester dacron rope for your wire antenna installations. Black and UV resistant.

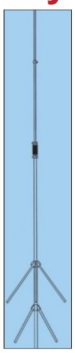
A. RPA-100. 100 feet, 3/32 inch nylon rope.

B. RPC-100. 100 feet, 3/16 inch polyester rope.

A. RPA-250. 250 feet, 3/32 inch nylon rope.

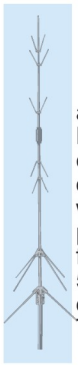
B. RPC-250. 250 feet., 3/16 inch polyester rope.

Hy-Gain VHF Vertical Antennas

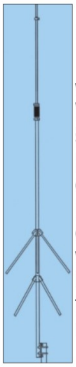


V-2R Covers 138-175 MHz — 2 Meter vertical with 5.2 dBi gain derived from the famous extended double zepp antenna design. Rad-iating elements are 2 collinear 5/8 waves fed in phase. 2 sets of 1/4 wave radials properly decouple lower radiator from mast. SO-239, 500 Watts. 9 ft.

V-4R Covers 400-475 MHz
V-3R Covers 216-225 MHz
UHF vertical with 5.2 dBi gain derived from double zepp antenna design. Type N, 500 Watts, 4 ft. **1 1/4 Meter** vertical with 5.2 dBi gain, double zepp design. SO-239, handles 500 Watts. 6 foot, 9 inches.



V-42R Covers 143-153, and 436-455 MHz — V-42R is independently tunable at 144 and 440 MHz. Fed thru one coax cable, it has sets of 1/4 wave radials which properly decouple 5/8 wave radiators from the mast. Gives 5 dBd gain UHF and 3 dBd gain on VHF. Type N, 200W. 9 foot.



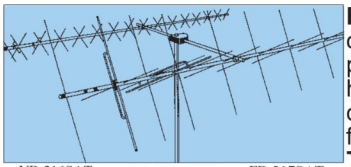
V-6R Covers 51-54 MHz — V-6R is based on 2 collinear 5/8 wave radiators. 500 Watt enclosed coil and 2 sets of 1/4 wave radials provide complete mast decoupling and optimum pattern, gain. Rugged design for severe weather, DC ground lightning protector. 25 ft.,3", UHF female connect, 500W. 15 lbs.

Model#	Frequenc	Gain dBi	Pwr Input	Wind	Max Mast	Height	Weight
V-2R	138-175	5.2 dBi	500 Watts	105 mph	2 in. OD	9 foot	6 pounds
V-42R	143-153, 436-455	7.2 UHF 5.2 VHF	200 Watts continuous	100 mph	2 in. OD	9 foot	6 pounds
V-4R	400-475	5.2 dBi	500 Watts	130 mph	2 in. OD	4 foot	4 pounds
V-3R	216-225	5.2 dBi	500 Watts	100 mph	2 in. OD	6 ft. 9 in.	5 pounds
V-6R	51-54	5.2 dBi	500 Watts	80 mph	1.5-2.25	25 ft. 3 in.	15 pounds

Hy-Gain VHF Ground Planes

GPG-2B Covers 142-185 MHz
GPG-1B Covers 144-148 MHz
GPG-2B is a 5/8 Wavelength Ground Plane for two meters is omni-directional and tunable from 142-185 MHz. It delivers an omni-directional gain of 3.2 dBi. Handles 100 Watts. Measures 4 feet, max mast mount accepted is 1.625 in O.D. Wind area is .30 sq. ft.
GPG-1B is a 1/4 Wavelength ground plane similar to the GPG-2B. It has unity gain, covers 144-148 MHz.
GPG-1, like GPG-1B, but covers 162-174 MHz.

Oscar Link 435 MHz•145.9 MHz



VB-216SAT Covers 144-148 MHz — UB-7030SAT Covers 432-438 MHz — FB-217SAT Crossboom Assembly only

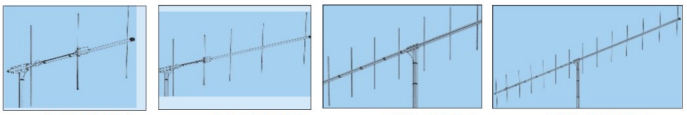
Hy-Gain's *Oscar Link*s are complete with necessary phasing lines, relays and hardware. Left and right circularity switching reduces fading.
True RF switching elements are rated at 200 Watts and have an improved VSWR for higher efficiency.
Feed points are encapsulated, weather protected for long life. The fiberglass crossboom maintains the integrity of the circularity pattern.

DB-218SAT. The complete 2-Meter/440 MHz *Oscar Link* antenna system with crossboom assembly with necessary phasing lines, relays and hardware.

Model#	F/B ratio	Gain dBi	Pwr Input	# Element	Boom	Wind	Weight
VB-216SAT	25 dB	13.7 dBi	200 W PEP	16	168.75 in.	1.1 sq. ft.	7 lbs.
UB-7030SAT	25 dB	16.2 dBi	200 W PEP	30	134 inches	.7 sq. ft.	4 lbs.

VHF-FM Beam Antennas

2-Meter FM beam antennas include Hy-Gain's exclusive *Beta Match*™ to provide exceptional Front-to-Back ratio, maximum obtainable gains. VB-23FM (8.3 dBi gain), VB-25FM (11.2 dBi gain), VB-28FM (14 dBi gain), and VB-214FM (15.2 dBi gain). Threaded stub for feedpoints. Accepts up to 2-inch mast.



VB-23FM — VB-25FM — VB-28FM — VB-214FM

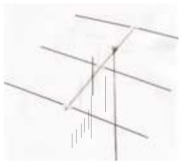
Feedpoint Pig Tail Cable

APT-2. Optional 2-ft length for connecting between antenna/coax. SO-239 on one end and 2 (#10) ring terminals on other. Fits *VB series* beams.

Dual Band Yagi Antenna

DB-2345 2 Meter/440 Dual Band Yagi
DB-2345 gives a whopping 8 dBi gain on 2-Meters and 6 dBi gain on 440 MHz. 3-elements on two meters and 5-elements on 440 MHz. Requires only one feedline for true *dual band* performance. Point in direction of your QSO for more direction of output power. Reduces interference, increases signal strength.

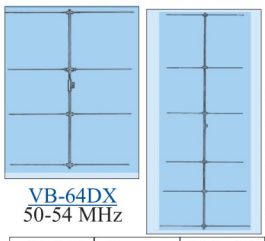
TriBand 2M/440 MHz /6M Yagi



VHB-246 2 Meter/440/6M Tri-Band Yagi
VHB-246 Tri-beam has 3-elements on 6M/2M and 5-elements on 440 MHz. 144/440 MHz are mounted at right angles to the 6M beam -- lets antenna be oriented for optimum 6M SSB/CW and 2M/440 MHz. Coax feed points for 6M and 2M/440 MHz.

Model#	F/B MAX	Gain dBi	Pwr Input	Long el	Boom	Mast dia.	Weight
VB-23FM	20 dB	8.3 dBi	500 Watts	40.25 in.	43.5 in.	2.0 in.	2 pounds
VB-25FM	20 dB	11.2 dBi	500 Watts	39.625 in.	75 in.	2.0 in.	3 pounds
VB-28FM	20 dB	14 dBi	500 Watts	40.25 in.	148.75 in.	2.0 in.	4 pounds
VB-214FM	20 dB	15.2 dBi	500 Watts	39.5 in.	15 ft. 6 in.	2.0 in.	6 pounds
DB-2345 - 2M VHB-246 - 2M	17 dB	8 dBi	500 Watts	40.5 in.	45 in.	1.5 in.	2 pounds
DB-2345 - 440 VHB-246 - 440	10 dB	6 dBi	500 Watts	40.5 in.	45 in.	1.5 in.	2 pounds
VHB-246-6M	20 dB	8 dBi	500 Watts	119 in.	144 in.	2.0 in.	28 pounds

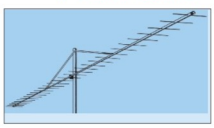
6-Meter DX Beam Antennas



VB-64DX 50-54 MHz
VB-66DX Covers 50-54 MHz
VB-64DX and VB-66DX feature a concept in beam construction that provides actual delivered performance equalling maximum theoretical gain. **The** 4-element VB-64DX generates an impressive 10.4 dBi gain and the 6-element **VB-66DX** increases the gain to an unprecedented 12.5 dBi.

Model#	Frequenc	Gain dBi	Pwr Input	wind area	#Element	Boom	Weight
UB-7031DX	420-438	19.8 dBi	2 kW PEP	1.9 sq. ft.	31	24.06 ft.	9.25 lbs.
VB-215DX	144-146	16.4 dBi	2 kW PEP	2.75 sq. ft.	15	27.88 ft.	13.56 lbs.
VB-64DX	50-54	10.4 dBi	500 Watts	1.1 sq. ft.	4	12 ft.	10 lbs.
VB-66DX	50-54	12.5 dBi	1.5kWPEP	1.8 sq. ft.	6	24.575 ft.	17 lbs.

VHF/UHF DX Beam Antennas



VB-215DX Covers 144-146 MHz
Hy-Gain's *DX-Series* VHF/UHF Beams are based on the DL6WU element length and spacing and were further refined on *Hy-Gain's* antenna test range and by computer modeling. They feature encapsulated weatherproof feedpoints with type N connectors for excellent VSWR and power handling. High quality mechanical construction is assured by heavy wall booms and boom supports made of 6063-T832 aluminum tubing, stainless steel hardware, UV stabilized thick-shoulder element insulators and PTFE coaxial baluns.

MIRAGE . . . 160 Watts on 2 Meters!

Turn your mobile, base or handheld into 160 Watt powerhouses and talk further, longer, clearer . . . All modes: FM, SSB, CW . . . Superb GaAsFET preamp . . . Has exclusive Active-Bias ™ system for crisp, clear voice in SSB mode . . . True push-pull circuitry and clean RF layout for excellent stability . . . Overdrive and high SWR protection . . . Remote controllable with RC-2 . . .

MIRAGE's *most popular* amplifier gives you 160 Watts of output power for just 25 W in from your base/mobile rig!

The B-2518-G is ideal for your 20 to 60 Watt 2 Meter mobile or base station.

You'll talk further, longer, clearer on all modes -- FM, SSB, CW -- hear weak signals better than you've ever heard before!

You get a low noise 20 dB GaAsFET preamp with an excellent 1 dB noise figure for pulling out weak signals.

B-2518-G is *fully protected* with features found in expensive commercial amplifiers.

High SWR or excessive input power can damage your amplifier. Protection circuits auto bypass your amplifier to prevent damage and an LED lights to warn you.

***New!* An** *Active-Bias™System* keeps SSB voice crisp and clear for fantastic operation. Other amplifiers using conventional bias methods tend to produce splatter and distortion as power level changes. This amp with *Active-Bias™* doesn't exhibit the problem.

Adjustable time delay gives you smooth transmit/receive switching. Remote external keying. You can remotely control your B-2518-G and place it out of the way. An RC-2, $69.95, Remote Control turns Power on/off, Preamp On/Off and select SSB/FM. Extra heavy duty custom heatsink spans the entire cabinet. Draws 17-22A from 13.8 VDC. Compact 12x3x5.5 inches.

Remotely control your B-2518-G/B-5018-G/B-1018-G and place it out of the way. An RC-2, Remote Control lets you turn *power on/off, preamp on/off, select SSB/ FM.* Other Mirage amps use RC-1. Call Mirage for positive compatibility.

More 160 Watt, 2-Meter Amplifiers

B-5018-G. 160 Watts output for 50 Watts input. For 20 to 60 Watt mobile or base station transceivers.

B-1018-G. 160 Watts output for 8 Watts input. For 0.25 to 15 Watt input transceivers.

B-2518-G

***Power Curve** -- typical output power in Watts*

B-1018-G	25	50	140	150	160	160	--	--	--	--	--
B-2518-G	5	7	40	60	80	100	125	160	--	--	--
B-5018-G	--	2	15	25	40	50	70	100	130	160	--
Watts In	0.25	0.5	3	5	8	10	15	25	35	50	--

Mirage 2-Meter/440 MHz Amplifiers for HTs!

DUAL BAND! BD-35 • D*STAR, System Fusion

• Works with all major brand Handhelds up to 8 Watts

• Auto RF sense T/R switch

Boost your handheld to a much more powerful mobile or base -- 45 Watts on 2 Meters or 35 Watts on 440 MHz! Get 35 Watts out with just 4W in! **MIRAGE's** exclusive *FullDuplex Amp*™ lets you talk on a band and listen on another at the same time.

Auto band selection, reverse polarity protection, on-air leds, free mobile bracket and more!

Works with HTs to 7W. 5Wx1½Hx5D". Draws 7A at 13.8 VDC.

B-310-Gdelivers 100 Watts on 2-Meters!

This rugged Mirage B-310-G amplifier operates all modes: FM, SSB and CW. It's the perfect match for all HTs up to 8W and multi-mode SSB/CW/FM 2 Meter rigs.

Built-in low noise GaAsFET receive preamp gives you 15 dB gain -- lets you dig out weak signals. SWR and Reverse Polarity Protection.

Mirage's integrated *HeatsinkCabinet*™ and whisper quiet fan gets heat out fast! **The results?**

An ultra-compact 4¾x1¾x7¾ inch 2½ pound amplifier that delivers a super powerful 100 Watts. Draws 15 Amps at 12-15 VDC.

Add this MIRAGE B-34-G amp to your 2 Meter HT and get 35 Watts output . . . talk further, longer, clearer . . . *It's the best HT amplifier can buy!*

Custom wheatsink provides excellent heat distribution, runs cool for long life. Reverse polarity protection saves your amp if you connect power backward.

Automatic RF transmit/receive switch, low input SWR keeps your HT safe from overheating.

LEDs show On-Air, receive preamp on and power on. 5¼x1¾x4¾". Free mobile mount bracket, hardware.

B-34. Like B-34-G, FM only, less preamp. 3⅛x1¾x4¼".

In Shack and Remote Preamps

KP-1

High gain ultra low noise GaAsFET preamps for receiving weak signals. Selectable gain prevents receiver intermod. 15-22 dB gain. Auto RF switching to 160W. Choose In-shack (details below) or Mast-Mount models (right).

FREQUENCY -- KP-1 *In-Shack* Model

A. 28-30 MHz cvcv
• Gain: from 15 dB to < than 25 dB
B. 50-54 MHz
• Noise: less than 1 dB
C. 144-148 MHz
D. 220-225 MHz • Power: 100 Watts
E. 430-450 MHz • Size: 4Wx2Hx1D"

KP-2

KP-2 ***Mast Mount* Model Features:**

• Automatic RF Switching, SO-239
• GaAsFET boosts weak signals
• Mastmount design reduces loss.
• In-Line design for easy control, N-type.
• High or Low switchable gain. 100W.
• Voltage: 12-15 VDC

FREQUENCY

A. 28-30 MHz
B. 50-54 MHz
C. 144-148 MHz
D. 220-225 MHz
E. 430-450 MHz

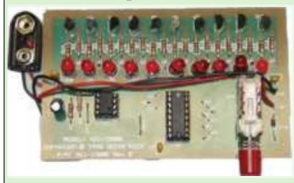
MIRAGE B-320G

200 Watts, 15 dB GaAsFET preamp, works all modes FM/SSB/CW. Fully protected by high SWR protection, mobile mounting bracket, Input level switch selects proper input power from your HT or mobile radio. HTs: 250 mW to 10 Watts. 1/4 Watts in gives 132 Watts out. 3 Watts gives full power.

Mobiles: 10to 50 Watts. 10W in gets 95W out. 50W in, gets full output. Custom heatsink gives excellent heat dissipation. Superb Mirage Warranty.

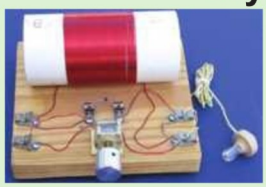
High-performance electronic kits . . . fun to build and use!

Comprehensive Soldering Course Kit



Designed for schools and individuals. Includes detailed instruction and study guide, theory, surface mount technology, quizzes, PC board and components for soldering practice. Used & endorsed by engineering schools in several universities, vo-tech schools, businesses and others. No kit case. **Order VEC-1500K.**

Crystal radio set Kit



Relive the experience of early radio pioneers! Wind your own inductor, wire up the earliest radio circuit without soldering a thing and listen to the magic of radio that needs no power. Put up an antenna, connect ground. Stations come in amazingly loud and clear. 1¾x5x6½". weekend!!! It's a great way to start to elmer a new young ham! **Order VEC-121K.**

SCA Decoder Kit lets you discover programming hidden in many standard FM broadcast signals. Commercial-free music, all-news, weather reports, stock quotes, digital, ethnic, blind reading services, etc. Tune entire SCA band 50-100 KHz. Connect to detector out of FM receiver. 1¾x 6½x5". *Simple*. **VEC-422K.**

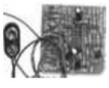
Aircraft Receiver Kit tunes voice aircraft 118-136 MHz, air traffic up to 100 miles. Track in/out traffic in your area, weather information, discover how National Air Traffic System works. Learn about aviation. Use 9V battery. Drives external speaker/phones. 1¾x4x3½ in. *Intermediate*. **VEC-131K.**

Shortwave Converter Kit converts AM or AM/FM radios to SW receiv-ers at a push of a button. Choose 2 1 MHz bands between 3 and 22 MHz. Popular 13,16,19, 25, 31, 41, 49 and 60 Meters international. On/off by-pass, NE-602/612 mixer-oscillator IC, tuned input circuit. 9 V battery. 1¾x4 x3½". *Intermediate*. **VEC-101K.**

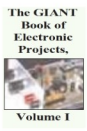
Voice Activated Recorder Switch Kit can remotely and auto record conversations, speeches. Don't waste tape recording silence. Plug in recorder jack and it activates when it hears speech. Built-in mic, on/off. Use 9V battery. *Simple*. **VEC-483K.**

QRP Transceiver Kits for 80/40/30/20 Meters gived VXO frequency control, broadband transmitter circuitry, solid 1-Watt plus output, shaped keying, .3 uV sensitivity, direct conversion receiver. Has crystal for popular QRP frequency. 1¾x4¾x5¼". *Intermediate skill level*. **VEC-1380K** (80 Meters),**VEC-1340K**(40 Meters),**VEC-1330K** (30 Meters),**VEC-1320K**(20 Meters) **each.**

Counter Surveillance Monitor Kit lets you search out and remove electronic bugs! Highly sensitive wideband receiver detector. Higher pitch audio occurs when bug is near. 9 V batt. *Moderate*. **VEC-8218K.**



The Giant Book of Electronic Projects **VEC-1901.**19 different kits, building tips, complete parts lists, parts placement, PC board layouts, schematics, test and alignment procedures, more.



Full featured CW Keyer Kit Self-completing dot-dashes and dot-dash memory forgive timing errors. Volume, speed (3-65 wpm) controls. Weight 25-75%. Sidetone 300 - 1000Hz. LM386 amp for speaker. Iambic A/B, fully auto or semi-auto *"bug"* mode. Sleep battery saver. Use 9V. 1¾x4x3½". *Simple level*. **VEC-201K.**

CW Memory Keyer Kit stores 512 characters in four 128 character non-volatile EEPROM message memories. *Carry on entire QSOs by just pressing memory buttons.* True sinewave sidetone with soft rise and fall time eliminates harsh keyclicks. Has all features of VEC-201K CW Keyer Kit. 1¾x 6¾ x5¼ in. *Simple*. **VEC-221K.**

Tunable SSB/CW Audio Filter Kit has sharp *4* pole peak and notch filters. Zero in frequency and adjust bandwidth for best response. Tune frequency 300-3000 Hz. Notch is 50 dB. 1W amplifier. Speaker/ Phone jacks. 12VDC@300 mA. 1¾x 4¾x5¼ in. *Intermediate*. **VEC-841K.**

Super CW Audio Filter Kit gives you 3 bandwidths: 80, 110, 180 Hz. 8 poles give super steep skirts with no ringing. Pull CW out of terrible QRM! Plugs in phone jack to drive. QRM down 60 dB one octave from center (750 Hz) 80 Hz bandwidth. Improves S/N ratio 15dB. Use 9V battery. 1¾x4 x3½". *Simple*. **VEC-820K.**

Super CW filter/ amplifier Kit has powerful 1 watt audio amplifier to drive speaker. 8 poles active IC filtering uses cascaded low-Q stages. 3 bandwidths: 80,110, 180 Hz. Center frequency: 750 Hz. Up to 15 dB. Use 9-18VDC, 300 mA max. 1¾x4 x3½ in. *Simple skill level*. **VEC-821K.**

Super SSB Audio Filter Kit improves readability with 8 poles, optimizes audio bandwidth, reduces SSB splatter, low, hi-pitched interference, hiss, static crashes, background noise. Use 9 Volt battery. 1¾x4x 3½ inches. *Simple skill level*. **VEC-830K.**

Ni-Cad/Ni-MH Battery Charger Kit safely quick charges expensive batteries, (no overcharge) many in less than an hour. HTs, cell phones, camcorders, lap top. 1¾x4¾x5¼ in. *Moderate*. **VEC-412K.**

Shortwave Receiver Kit listens to the world! Get 75/80, 49, 40, 30, 31, 20, 25, 22, 19, 17, 16, 15, 13M. Explore AM, SSB, CW, WWV, RTTY, Packet. Have a great weekend with a grandchild by building and teaching them about radio. Vernier reduction drive, regeneration control, RF stage. *Cabinet, knobs, buttons*. 2 earphones. Use 9V battery. 2½x7x6 in. *Intermediate*. **VEC-102K.**

20/30/40/80 Meter Receiver Kits give high performance! Cover entire band or tailor for desired. Copy CW/SSB/AM. NE602/612 mixer-oscillator, LM386 high gain audio amplifier. 1¾x4¾x5¼ in. *Moderate*. **VEC-1120K** (20M),**VEC-1130K** (30M),**VEC-1140K** (40M), **VEC-1180K** (80M) each**.**

20/30/40/80 Meter QRP CW transmitter Kits have variable crystal oscillator tuning, front panel switch selects 1 of 2 crystals, 1 included. Transmit/Re-ceive switch. Connect receiver. 1¾x4x 3½ in. *Intermediate skill level*. Order **VEC-1220K** (20 Meters), **VEC-1230K** (30 Meters), **VEC-1240K** (40 Meters), **VEC-1280K** (80 Meters) **each.**

AM Radio Transmitter Kit Set up your own AM broadcast station. Crystal clear programming with *you* as the disc jockey. Choose clear frequency 530-1750 KHz. Standard line level or mic input. Audio level adjustment. 1¾x4x3½ in. *Simple*. **VEC-1290K.**

FM Stereo Transmitter Kit lets you connect your MP3/CD player, tape or other and broadcast clear programming on the FM band! Realistic grand theater sound! Use to assist hard-of-hearing. Frequency adjusts 88-108 MHz. 9V battery or 5-15 VDC. *Moderate.* **VEC-1292K.**

144/220/440 MHz Low-Noise Preamp Kits soup up antenna systems, pull in weakuns. Immunity from damaging electrostatic discharge.1x1½". *Simple*. **VEC-1402K**-144, **VEC-1422K**-220, **VEC-1444K**-440,**$39.95.**

Cases available for most kits listed above. Add "C". **Example: VEC-201KC.**

VC-300DLP . . . World's most versatile HF Antenna Tuner

Get everything you've ever wanted. Precise inductance control rivals roller inductors and matches any *real* antenna! Full 1.8-30 MHz coverage, peak reading backlit Cross-Needle Meter, 8 position antenna switch, built-in 50 Ohm dummy load, finest components and world class quality.

VECTRONICS' custom inductor switch was designed to withstand the extremely high RF voltages, currents developed in your tuner. *Built-to-last.*

Tune *any* real antenna 1.8-30 MHz, in-cluding all MARS/WARC bands. Verticals, dipoles, yagis, quads, wires ...

4:1 balun for balanced lines. 300W PEP, 200W continuous. 150W 1.8 MHz.

A backlit Cross-Needle Meter displays SWR, forward and reflected power simultaneously. Reads both peak and average power on 30/300 Watt scales.

VC-300DLP

Lamp has front panel switch and uses 12 VDC or 110 VAC with optional **AC-12D.**

8-position switch selects 2 coax fed antennas, random wire/balanced line or built-in dummy load for use with tuner or direct to your rig. Bypass position keeps SWR meter in line.

Built-in dummy load is for testing, repairing radios, setting levels, more.

Aluminum case, scratch-proof color Lexan fpanel. 10Wx9.5Dx3.5H inches.

Vectronics 300 Watt Mobile Tuner

VC-300M

Mobile Antenna Tuner is compact, lightweight, easy-to-operate and is our most economical. Compatible with any mobile antenna and any mobile HF rig and small enough to fit in a compact car.

Use at base station with dipoles, vees, verticals, beams or quads fed by coax. Backlit dual movement meter simultaneously monitors power/SWR.

Covers 18 to 30 MHz. Handles 300 Watts SSB PEP, 200 Watts continuous, (150 Watts on 1.8 MHz).

Measures just 7.25Wx8.75Dx3.6H inches. Weighs just 3.4 pounds.

VECTRONICS HF/VHF/UHF Dry Dummy Loads

1500 Watts HF/VHF/UHF Dry Dummy Loads

DL-650M. Handles 100 Watts continuous, 1500 Watts for 10 seconds to 650 MHz. Ceramic resistor. SWR lower than 1.3:1. Has SO-239 Connector.

DL-650MN. Like DL-650M but has N-type connector.

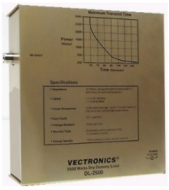
300 Watts Dry Dummy Loads

DL-300M. Full 300W for 30 seconds. Air-cooled, non-inductive resistor in a perforated metal housing. Has SO-239 connector. Silk-screened derating curve. SWR below 1.1:1 to 30 MHz.

DL-300MN. Like DL-300M but with N connector.

2500 Watts Fan-cooled Dry Dummy Load

DL-2500. 2500 Watts dry dummy load is fan cooled. DC to 150 MHz. Can dissipate 2500W average power for 1 minute on, 10 off. Detailed power curve.



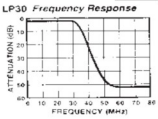
DL-2500Nwith N connector.

VECTRONICS Low Pass TVI Filters

1500 Watts Low Pass TVI Filter

Use between transmitter and Antenna or Tuner. Reduces TV interference (TVI) radiated by operations below 30 MHz. Suppresses harmonics appearing in TV bands above 40 MHz. Low loss to 30 MHz. 9-pole inverse Chebyshev.

LP-30

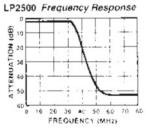


SPECIFICATIONS:
Passband: 0-30 MHz
Cutoff freq: 35 MHz
Attenuation: 42.17 MHz (Color IF), -70 dB 45.75 MHz (Video IF), -70 dB 52.25 MHz (Channel 2 Video), -60 dB; Worst case at 65 MHz, -60 dB
Power Capacity:1500 W Key Down - 50% Duty **Impedance:** 52 Ohms
Insertion Loss: 0.25 dB @ 30 MHz
VSWR: Less than 1.5:1 **Dimensions:** 8.75Wx3Dx2.75H inches.

2500 Watts Low Pass TVI Filter

Use between your Transmitter and Antenna or Tuner. Reduces TV interference (TVI) radiated by operations below 30 MHz. Suppresses harmonics appearing in the TV bands above 40 MHz. Low loss to 30 MHz. 9-pole inverse Chebyshev.

LP-2500



SPECIFICATIONS:
Passband: 0-30 MHz;
Cutoff freq: 35 MHz;
Attenuation: 52.25 MHz (Channel 2 Video), -60 dB; Worst case at 65 MHz, -60 dB **Power Capacity:** 2500 W Key Down - 50% Duty **Impedance:** 52 Ohms; **Insertion Loss:** 0.25 dB @ 30 MHz; **VSWR:** Less than 1.5:1; **Dimensions:** 9.5Wx4.25Dx2.38H inches. **Weight:** 2.5 lbs.

VECTRONICS SWR/Power Meters

PM-30.
For 1.8-60 MHz. Displays forward and reflected power and SWR simultaneously on dual movement Cross-Needle Meter. True shielded directional coupler assures accuracy. Backlit meter displays peak or average power in 300/3000W ranges. Measures a compact 5.3x5.75x3.5 inches. Has quality SO-239 connectors.

PM-30UV.
For 144/220/440 MHz ranges. 30/300W power ranges. SO-239s.

PM-30UVN.
Similar to PM-30UV but has Type N antenna connector.

PM-30UVB.
Similar to PM-30UVN but has BNC antenna connector.

AT-100 Tuned Active SWL Antenna

This portable compact antenna is perfect for indoor use by itself or with an external antenna. Great for Apartment and Condo dwellers, mobile homes and campers wanting to hear the worldwide shortwave listening bands.

Tunes 300 KHz to 30 MHz including VLF, AM broadcast, all shortwave and ham radio bands. Great for Shortwave listening and for those without antenna access to the great outdoors! Improves weak, noisy scanner radio receiption from high to low band VHF -- You'll hear signals you couldn't hear before.

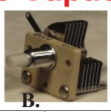
AT-100 improves gain and selectivity, reduces noise and intermod, and is not prone to self-oscillations that can severely damage your receiver.

Use 9 Volt battery or 12 VDC or 110 VAC with optional AC-12 adapter. 6Wx2Hx5D inches.

Select MFJ hard-to-find Components for your Homebrew Projects

Air Variable Capacitors

A.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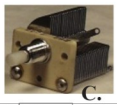
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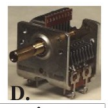
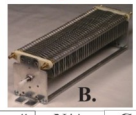

D.

Figure	Part No. #	N/A	Cap. pF	VRMS	Gap	Plates	Dimensions
A	282-2005		16-208	1000	.032"	50	1.4Wx1Hx3D in.
A	282-8700		10-26	1500	.080"	18	1.4Wx1Hx2.8D in.
B	282-2010		2-10	640	.016"	2	1.4Wx1Hx1.7D in.
B	282-2012		5-51	1000	.032"	13	1.4Wx1Hx1.1D in.
B	282-2150		6-154	640	.016"	20	1.4Wx1Hx1.3D in.
C	282-2006		12-313	640	.016"	40	1.4Wx1Hx1.7D in.
D*	282-5050-1		5-67	1200	.045"	15	1.2Wx1.3Hx1.3D in.
D*	282-5160		6-180	350	.010"	15	1.2Wx1.3Hx1.3D in.

* Items D are broadcast style variables and are used in MFJ Analyzers and Transceivers. A 8:1 Vernier drive is built into the capacitor.

High Voltage Air Variable Capacitors

A.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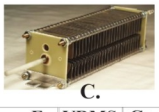
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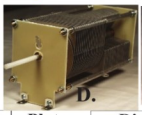
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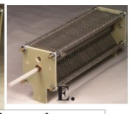
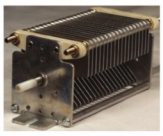
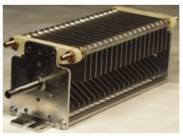

E.

Figure	Part No. #	N/A	Cap. pF	VRMS	Gap	Plates	Dimensions
A	282-2007-1		10-125	3.5 kV	.120"	27	2.5Wx3.6Hx6D"
A	282-2018-1		10-250	1.5 kV	.045"	37	2.5Wx3.6Hx6D"
A	282-2008-1		10-250	3 kV	.120"	53	2.5wx3.6hx10.8d"
B	282-2009-1		75-500	2.5 kV	.075"	75	2.5wx2.6hx10.8d"
C*	282-2015		40-300	3.5 kV	.120"	79	2.5wx2.6hx10.8d"
D*	282-2020		40-493	1.5 kV	.045"	35	3.5Wx4.5Hx6D"
D*	282-2028		50-996	1.5 kV	.045"	72	3.5Wx4.5Hx9.6D"
E*	282-2016		12-67	1.5 kV	.045"	56	2.5wx3.5hx6D"
E*	282-2017		18-136	1.5 kV	.045"	112	2.5wx3.5hx10.8d"
D*	282-2026		50-916	1.5 kV	.045"	72	insulated rotor sections

Item C is a differential capacitor, as used in the MFJ-986 antenna tuner. Items D are dual-gang capacitors, capacitance specified is total capacitance. Items E are butterfly tuning capacitors. Used in MFJ loop tuners, have no rotating contacts, super low losses.

Amplifier high-voltage Variable Caps





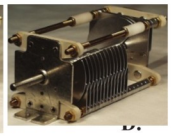


Figure	Part No. #	N/A	Cap. pF	VRMS	Gap	Plates	Dimensions
A	282-2113		20-823	800 V	.017"	23 x 3	1.8Wx1.8Hx3.3D"
B	282-2112-1		20-250	2.5 kV	.075"	37	2.8Wx2.6Hx5D"
B	282-2572-1		20-405	1.5 kV	.045"	37	2.8Wx2.6Hx4D"
B	282-2573-1		25-800	1.1 kV	.030"	53	2.8Wx2.6Hx4.5D"
C	282-2570		20-171	3.5 kV	.120"	37	2.8Wx2.6Hx7D"
D	282-3700		15-176 7-23	2.5 kV	.075"	31	2.8Wx2.6Hx6D"

Used in Ameritron high power linear amplifiers. Items B have delrin insulated shaft. Item D has two capacitance sections.

Shaft coupler for rollers, caps, switches

725-3105-1.
3/4 Diameter by 1 1/4" length, Nickel plated brass Shaft Coupler for 1/4 inch diameter shaft has two 10-32 hex socket set screws.

MFJ Knobs, Pointers and Ball Drives

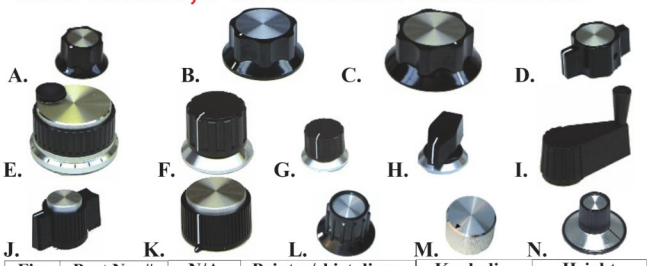
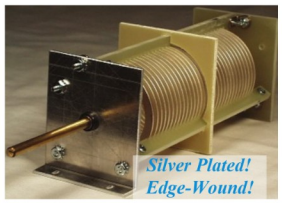

A. B. C. D. E. F. G. H. I. J. K. L. M. N.

Fig.	Part No. #	N/A	Pointer/skirt diam.	Knob dia.	Height
A	760-0035		1 inch	11/16 inch	9/16 inches
B	760-0125		1 1/2 inches	1 1/4 inches	3/4 inches
C	760-2281-1		2 inches	1 5/8 inches	7/8 inches
D	760-0550		1 1/2 inches	1 inch	3/4 inches
E	760-0275B		2 1/8 inches	1 7/8 inches	1 3/8 inches
F	760-0277		1 7/8 inches	1 1/16 inches	1 inch
G	760-0278		7/8 inches	3/4 inches	11/16 inches
H	760-0276		7/8 inches	13/16 inches	5/8 inches
I	760-2409		1 3/4 inches	3/4 inches	1 1/2 inches
J	760-0176		1 1/4 inches	11/16 inches	3/4 inches
K	760-0177A		1 3/8 inches	1 1/4 inches	7/8 inches
L	760-0033		13/16 inches	7/16 inch	5/8 inches
M	760-1233		1 inch	1 inch	5/8 inches
N	760-1720		1 1/4 inches	9/32 inches	3/4 inches

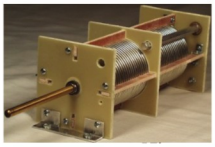
Edge-wound AirRoller Inductor 404-1032.

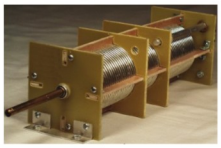
Flat wire, edge-wound, *high power* air roller inductor. Silver plated Cu coil, silver plated contact discs/shaft. Heavy duty 1/4" thick fiberglass. 16 uH, 31 turns, 2 1/2" diameter, 1/4" round by 3" shaft length. 2 3/4Wx3 1/8Hx8D". Used in ATR-30.



MFJ AirCore ™ Roller Inductors

Exclusive *heavy duty AirCore*™ roller Inductors are cores that can't burn up! Ultra high-Q, lowest loss, highest efficiency, highest power handling of any inductor in ham radio. *Self-Resonance Killer*™ keeps po-tentially damaging self-resonances away from your operating position. Large, self-cleaning wiping contact gives excellent low-resistance without contact arcing or burning. Solid 1/4" brass shaft, self-align bearings for smooth rotation. 12 gauge tin-plated copper, silver plated wheel/shaft. Fiberglass frame.





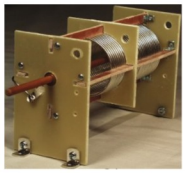


Figure	Part No. #	N/A	L. uH	Turns	Coil Dia.	shaft size	Dimensions
A	404-1052		33	43	2"	3 1/2"	3Wx3Hx7 1/2D"
B	404-1056		44	57	2"	3"	3Wx3Hx9 1/4D"
C*	404-1060		22	31	2"	2 1/2"	3Wx4 1/2Hx7 1/2D"

*C item has 1/4" round phenolic tuning shaft, has no "self-resonance-killer". A and B have 1/4" round brass tuning shaft.

MFJ Air-Wound Coils

MFJ *air-wound* coils constructed with a solid rigid round acrylic rod and embedded tin-plated solid copper wires. Super strong and superbly crafted. MFJ winds them so they stay wound. Select MFJ *air-wound* coils for mobile and portable antennas, antenna tuners, amplifiers and other radio projects.

Part No.	N/A	Inductance	Coil length	Coil Diameter	Turns per Inch	Wire size (AWG)
404-0811		70 uH	9 1/2 in.	1 3/4 in.	10	14
404-0600		44 uH	12 in.	2 in.	6	10
404-0669		**79 uH**	**12 in.**	**2 in.**	**8**	**12**
404-0700		77 uH	12 in.	2 in.	8	10
404-0008		**159 uH**	**10 in.**	**2 1/2 in.**	**10**	**16**
404-0024		35 uH	11 in.	3 in.	4	10
404-0009		**230 uH**	**10.5 in.**	**3 in.**	**10**	**16**
404-2289		45 uH	12 in.	2 in.	7	14
755-4001-1			Designed to clip on air-wound coil for wire size up to AWG 12. 1/4" wide silver plated contact has set screw to secure. Contact socket for banana plug.			

MFJ high power RF rotary switches

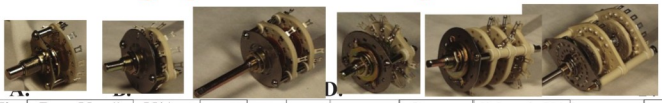

A. B. C. D.

Fig.	Part No. #	N/A	Pos's	Pole	Sect.	index deg	Contact	dielectric VAC	material	dia.
A	500-2026		12	1	1	30	3 Amps	1500	glass epoxy	1.44"
B	500-2038		6	1	1	30	9 Amps	1500	ceramic	1.88"
C	500-2027		6	2	2	60	9 Amps	1500	ceramic	1.88"
D*	500-2811		6	2	1	30	9 Amps	1500	ceramic	1.88"
E*	500-2135		6	4	3	30	9 Amps	1500	ceramic	1.88"
F*	500-3557-1B		6	4	2	20	17 Amps	3000	ceramic	2.81"
B	500-2017		6	2	1	30	9 Amps	2000	ceramic	1.88"

MFJ high-voltage switches have 3/8-32 bushing and 1/4 inch round shaft. *D, E, and F are switches that are specially designed for amplifier band switching.

Vernier Reduction Ball Drive

729-0142-1.
6:1 Tuning R
Used in Ameritron amplifiers and tuners. Dial plate mounting flange. Two pre-tap pointer mounting holes, mates with 1/4" shaft, has pre-tap set screw holes. 1/4" shaft, 3 1/4"Length.

Knob Pointers

726-0227R.
Red, 1 1/4" Length, matches two inch tuning knobs.

726-0230R.
Red 1-inch length, matches 1 1/2" tuning knob. **Both** pointers are made to fit 729-0142, 6:1 reduction drive.

Turn Counter Set

MFJ-TC11.
Includes counter module, 2 gears and mounting bracket. Driving gear fits 1/4" round shaft. Counter ratio is 3:1. Reset button, 3-digits, counts up to 999 turns.

Select MFJ hard-to-find Components for Repair/Homebrew Projects

Amplifier Power Supply Electrolytic Caps

High capacitance, computer grade aluminum can electrolytic capacitors. Long life, low ESR and can handle high ripple currents. Themal-Pak extended cathode foil construction assures cool operation. Great choice for high-capacitor amplfiier, power supply and energy storage application. 10-32 screw terminals.

Part No. #	N/A	Value (uF)	WVDC	Ripple (I)	Size (DxL) inches
270-6270-7		270 uF	450V	1.5A	1 3/8x2 1/8
270-6380-7		470 uF	450V	2.4A	1 3/8x3 1/8
270-8270-2		27000 uF	75V	9.0A	2x4 5/8

Electrolytic Capacitors

Can-type electrolytic capacitors ideal for amplifiers and power supply applications. They have snap-in PCB terminals.

Part No. #	N/A	Cap uF	WVDC	D x L (in.)
270-6220-7B		220	400 V	1 3/16x1 5/8
270-7100-5A		1000	250 V	1 3/8x2

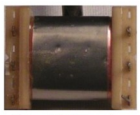
RF Ceramic Doorknob Capacitors

P/N: 290-0500-7.
P/N: 290-0170-7.
P/N 290-0500-7 is 500 pF, 20%, 7.5 kV. P/N: 290-0170-7 is 170 pF, 20%, 7.5 kV. Both are HT50, RF Ceramic Doorknob Capacitors manufactured by High Energy. These RF transmitting capacitor are ideal for use in RF amplifiers. Threaded 6-32 ends for easy connection. 3/4" diameter x .625" long.

High-Voltage Vacuum Relays

These vacuum relays are ideal for amplifier QSK switches. Contacts are capable of carrying 10 Amps and break down voltage is 5 kV.

A.



B.

A. 408-8100. Kilovac S05FJA238, DPST-NO, contact form, 2A, 5kV rating between contacts, current is 10A DC or 5A RF, 12 VDC coil voltage and 500 Ohm coil resistance.
B. 408-8500. Wabash 1017-20-1, DPST, one pole normally open, one pole normally closed. 12 VDC coil voltage.

Power Relays

Special relays designed for amplifier TR switching, in-rush current protection and other high current applications.

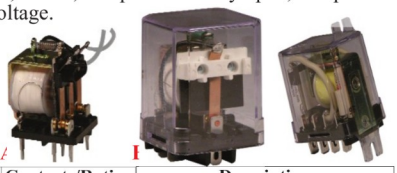
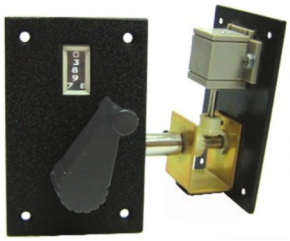


Fig.	Part No. #	N/A	Coil Volts	Contacts/Rating	Description
A	408-6140		12 VDC	3PDT -- 10A	PCB terminals, 80B/600/500 T/R
A	408-6148		12 VAC	5PDT -- 10A	Solder lugs, In-Rush, 80B/600
A	408-6240		240 VDC	SPST -- 10A	PCB terminals, amplifier in-rush
A	408-6145		120 VDC	SPDT -- 10A	PCB terminals, amplifier in-rush
A	408-6077		120 VAC	SPDT -- 10A	Solder lugs, stub mount, general purposes P&B KA5AG
B	408-1255		12 VDC	DPDT -- 10 A	P&B KUP-11D55-12
B	408-4700		120 VAC	SPST -- 15A	Chassis mount, QC terminals, in-rush
C	408-7110		12 VDC	DPDT -- 20A	QC Terminals, dust cover, flange mount, Sigma 45R2C112-12 VDC
C	408-6230		24 VDC	3 PDT -- 10A	Midtex relays 157-33C200, silver con tacts, .187" quick connect terminals

Slug Core Tuning Tool

965-6204. Plastic tuning stick for adjusting slug cores. Has .1 inch hex end, 7 1/4" long. Fits all Ameritron tube amplifier input coils.

Precision mechanical Deluxe Turns Counter



MFJ-TC12. This Precision designed mechanical deluxe turns counter is for use with roller inductors, vacuum capacitors, air variable capacitors, etc.

Precision 5-digit counter is enclosed in a dust-free plastic casing. Counts to 9999.9 turns. Counter is coupled to a 1/4" shaft at right angles with bevel gears.

1/8 inch thick aluminum mounting plate is coated with texture powder paint.

Has #4 counter sink mounting holes. Mount in 1x3" cutout hole. Unit is 2 1/4Wx3 1/2H in. Assembly includes 1/4 inch shaft coupler and a 1 3/4" fast-turned crank knob.

Pre-wound 200 Watts and 1.5kW Baluns

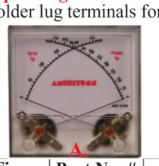
A.

B.

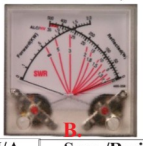
A. 10-10002B. Bifiliar wound balun, 1" diameter, ferrite toroid core, 200 Watts, 1.8-30 MHz. Used in 200/300 Watts antenna tuners.
B. 10-10989D. Bifiliar wound balun, 2-stack 2 1/2" ferrite toroid cores wound with high-voltage wire. 1.5 kW, 1.8-30 MHz. Used in MFJ-989D tuner.

Precision DC Cross-Needle Meters

Unique, two-meters-in-one Cross-Needle design makes these meters ideal for use in amps and SWR/Wattmeters. Rugged construction with removeable clear plastic cover. Plug-in 12 VDC meter lamp, front panel "zero" adjustment. ***NEW!*** **"L" models have super bright LED backlight!!!!** Raised window for recessed front panel mounting. Solder lug terminals for meter movement, lamp. Linear moving coil movement.

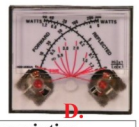


A.



B.

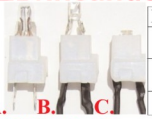
C.



D.

Figure	Part No. #	N/A	Sens./Resist./Size	Scale Description
A	400-3580L *LED Light*		1mA/120 Ohm 2.8Wx2.8Hx1.4D"	10-250 mA grid current & 0-750 mA plate current
B	400-3581L *LED Light*		1mA/120 Ohm 2.8Wx2.8Hx1.4D"	0-2.0 KW Fwd power, 0-500W ref power, 0-35 ALC/ HV, SWR
C	400-3084A 400-3084L *LED Light*		200uA/750 Ohm 2.8Wx2.8Hx1.4D"	0-300W fwd power, 0-60W ref power, SWR. "L"model is LED backlit.
D	400-3083A 400-3083Y *LED Light*		200uA/750 Ohm 2.1Wx1.8x1.4D"	0-300 fwd power, 0-60 ref power, SWR curves "Y" model is LED backlit.

LED/Incandescent Replacement Light Bulbs

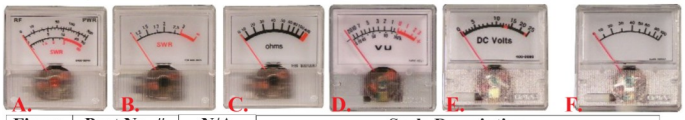


A. B. C.

Figure	Part #	N/A	Description
A	355-2299		Incandescent replacement bulb for small and large Cross-Needle Meters, (2.1"W or 2.8"W)
B	355-3200		LED light replacement for large (2.8"W) Cross-Needle Meter
C	355-3201		LED light replacement for small (2.1"W) XMeter

Miniature DC Panel Meters

Quality, compact and inexpensive panel meters. Clear, removeable cover, raised window for recessed mounting. Solder lug terminals, moving coil movement. 100 uA movement, 750 Ohm resistance. Size is 1.6Wx1.6Hx1D inches.

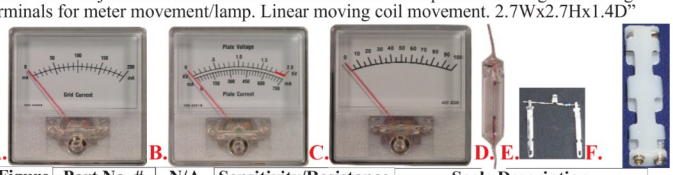


A. B. C. D. E. F.

Figure	Part No. #	N/A	Scale Description
A	400-0014A		0-300 Pwr, 0-30 Pwr, SWR, red/black dual color scale, used in tuners and wattmeters
B	400-0035		SWR, red/black scale used in analyzers
C	400-0047		0-400 Ohm resistance, red/black scale used in analyzers
D	400-0027		-20+3dB, 0-100% VU modulation scale, red/black dual color for line audio monitor
E	400-0090		0-25 DC Volts, red/black scale for DC volt monitors
F	400-0026A		0-100 general purpose scale

Precision DC Panel Meters

Rugged construction with removeable clear plastic cover. Built-in 12 VDC lamp, front panel "zero" adjustment. Raised window for recessed front panel mounting. Solder lug terminals for meter movement/lamp. Linear moving coil movement. 2.7Wx2.7Hx1.4D"



A. B. C. D. E. F.

Figure	Part No. #	N/A	Sensitivity/Resistance	Scale Description
A	400-2600AL		1mA/120 Ohm	0-200 mA Grid Current Meter for AL-811/H amp. LED lamp.
B	400-2601AL		1mA/120 Ohm	0-2.0 kV plate V, 0-700 mA plate I for AL-811/H. LED lamp.
C	400-2026		1mA/120 Ohm	0-100 general purpose scale
D	355-0320		Replacement bulb for 400-2XXX meters, above.	
E	355-0320L		Replacement LED for 2XXX meters. Set for 15 VDC	
F	730-2342		Replacement battery holder for MFJ-259/B. Holds four AA batteries. Requires two per analyzer. $2.50 each holder.	

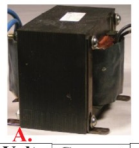
Ferrite and Iron Powder Toroidal Cores

Get RFI out of television, telephone and other electronic devices. For baluns, chokes, coils, more.

Part No. #	N/A	Size: ODxIDxTH inches	Description
420-6102		.375x.187x.125	#61 Ferrite
420-6103		.500x.281x.188	#61 Ferrite
420-6114		1.00x.610x.320	#61 Ferrite
420-7510		1.00x.610x.320	#75 Ferrite
420-6138		2.40x1.40x.500	#61 Ferrite
421-02037		.375x.205x.128	T-37-2 Iron Powder Mix 2
421-02050		.5x.303x.90	T-50-2 Iron Powder Mix 2
421-02068		.69x.370x.190	T-68-2 Iron Powder Mix 2
421-02094		.942x.560x.312	T-94-2 Iron Powder Mix 2
421-02106		1.00x.57x.437	T-106-2 Iron Powder Mix 2
421-02157		1.57x.950x.570	T-157-2 Iron Powder Mix 2
421-02200		2x1.25x.530	T-200-2 Iron Powder Mix 2
420-7800		1.00x.50x.410	Iron Powder Mix 2

Power Supply, Amplifier Transformers

These transformers are for building power supplies and amplifiers. 406-3800 is designed for linear power supplies, that is capable of delivering current up to 30 Amps at 13.6 VDC. 406-1109-2C is designed for a single 3-500Z tube, 1000 Watts HF Amplifier. Has buck/boost winding. Can be used as a replacement transformer for Heathkit SB-1000, AL-80A.


A.

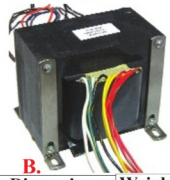
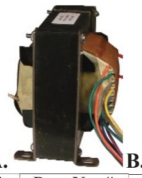

B.

Fig.	Part No. #	N/A	Pri. Voltage	SEC Voltg	Current	Dimensions	Weight
A	406-3800		120V	18V	30A	4Wx4Lx3 3/4H"	11 lbs.
B	406-1109-2C		90-140, 205-250 w/buck boost winding	1. 1047Vac 2. 22 Vac CT 3. 5.2Vac CT	.1 Adc 1.5 Adc 15 Aac	6Wx6Lx5 1/4H"	26 lbs.

Amplifier Power & Filament Transformers

Specially designed for our most popular HF amplifiers. Has unique buck-boost winding to adapt to low or high line voltage conditions.
Use of electrical silicone steel lamination makes these transformers highly efficient, resulting in low loss and producing less heat. Well constructed for low noise and coated with varnish. 110/220 VAC. Usable for 50 or 60 Hz.


A.

B.

C.

D.

E.

Fig.	Part No. #	N/A	Pri. (Volt)	Sec. (Volt)	Dim./Applications	Weight
A	406-1532	$	110/220 w/ buck-boost	1500VAC@.5A 12VAC@1A 6.5VAC@16A	5Wx4 1/4Hx6 1/4D 811A 4-tube amplifier	17 lbs.
B	406-1572		110/220 w/ buck-boost	900V@.5A 12V CT@1A	6Wx5 1/4Hx5 1/4D 572B,4-tube amp	23 lbs.
B	406-1248-1		110/220 w/ buck-boost	868VAC@.5A 22VCT@1.5A 12.8V@5A	6Wx7 1/2Hx5 1/4D 3CX800A7 2-tube amp	33 lbs.
C	406-1418-1D *Hypersil*(R)		110/220 V	2570 Vac@.8A	8Wx7Hx7D 3CX1500A7 3CX1200A7/Z7 2x3-500G amps	32 lbs.
D	406-1419-1J		110/220 V	5.6V@30A 14V@2A	2 1/2Wx3Hx3 3/4D 3-500Z filament	5 lbs.
D	406-1419-2J		110/220 V	7.7V@21A 14V@2A	2 1/2Wx3Hx3 3/4D 3CX1200A7 Filam	5 lbs.
D	406-1419-3J		110/220 V	5.6V@15A 14V@2A	2 1/2Wx3Hx3 3/4D 3CX1500A7 Filam	5 lbs.
E	406-1620		120 V	50V@2A, 32V@1A	4Wx23/4Hx3D	4 lbs.

Non-Inductive Resistors . . . *Ideal for Dummy Loads*

A.

B.

C.

D.

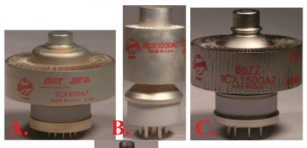
E.

Fig.	Part No. #	N/A	Resistance	Rating	Diameter	Length
A	113-1220		22 Ohm	35W cont.	3/4 inches	2.5 inches
A	113-1350		35 Ohm	35W cont.	3/4 inches	2.5 inches
A	113-1450		45 Ohm	35W cont.	3/4 inches	2.5 inches
A	113-2100		100 Ohm	35W cont.	3/4 inches	2.5 inches
B	115-1500		50 Ohm	90W cont.	3/4 inches	5 inches
D	119-1500		50 Ohm	200W cont.	1 inch	6 inches
D	755-3080		Terminal clip for 3/4" dummy load resistor, requires 2 per resistor.			
E	755-4100		Terminal clip for 1" dummy load resistor, requires 2 per resistor.			

Ameritron sells Eimac (R) Tubes

Ameritron sells *Eimac*(R) tubes for amateur radio, broadcast and industrial uses. *Call for a quote!*

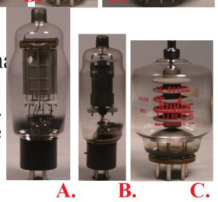
A. 3CX800A7
B. 3CX1200D7
C. 3CX1500A7


A. B. C.

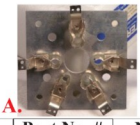
811A, 572B, 3-500Zs . . .

Don't just buy any untested tube that can dam your amp. Buy Ameritron *fully tested and warranteed* tubes. *Match* pairs are also available.

A. 380-0811A, 811A tube.
B. 380-0572B, 572B tube
C. 380-0500GT, Taylor 3-500ZG tube


A. B. C.

Tube Sockets


A.

B.

C.

D.

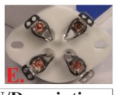

E.

Fig.	Part No. #	N/A	Fit Tube Type	#pin	Manufacturer PN/Description
A	50-0080-5		3-500Z, 3CX1200A7	5	custom made glass epoxy socket
B	625-8199		6LQ6 or equivalent	9	PCB mount pins
C	625-8731-1		3CX1500A7/8877	7	Ceramic
D	625-8800		3CX800A7	11	EF Johnson 124-0311-100
E	625-8811		811A, 572B or equiv.	4	4-pin ceramic

Tube Plate Caps & Heatsinks

A.

B.

C.

Fig.	Part No. #	N/A	Description
A	750-0323		Plate cap for 3-500Z tubes. Finned aluminum heat sink with set screw. 1 1/4" dia. by 5/16" thick.
B	755-3626		Plate clip for 3CX1500A7/8877 tube.
C	755-6811		Ceramic plate cap for 811A, 572B tubes.

Tube Glass Chimneys

A. 391-1500.
Chimney for 3CX1500A7/8877 tube
B. 391-3500.
Chimney for 3CX1200A7 and 3-500Z tubes.

A

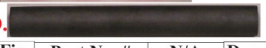
B.

AmplifierPlates and Filament Chokes

A.

B.

C.


D.

E.

F.

Fig.	Part No. #	N/A	Description
A	10-15197		Complete plate choke covers 1.8-30 MHz, includes WARC bands, 225 uH, handles 1.5A, 4 kV. Wound on 1"dia. x 5 5/8" long glazed ceramic form. Used in Ameritron amps.
B	719F-7380C		Glazed ceramic plate choke form. 1" dia. by 5" long. Both ends tap for 1/4"-20 screw.
C	10-15115-1		Complete broadband filament choke. Use for 3-500Z, 3CX800A7, 3CX1200A7 and 3CX1500A7 tubes. Handles 30A, covers 1.8-30 MHz. 12 gauge enamel wire, bifilar wound on .5" dia. by 4" long ferrite rod.
D	412-0109		Filament choke ferrite rod. 5" dia. by 4" long. Used in 10-15115-1.
E	401-4090-1		RF Choke, 90 uH, 1A, ferrite core, 3/8Dx1 1/2L"
F	401-6250-1		RF Choke, 2.5 mH, 300 mA, phenolic core, 1/2Dx1L"

Feedthru Insulators

606-1006, $4.95
Ceramic Feedthrough insulator comes complete with hardware. 3/4" diameter x1 1/4". Fits 7/16" dia. chassis hole.

A B C D

A. 606-0014. 5-way post, black, 30A.

B. 606-0013. 5-way post, red, 30A.

C. 606-0004. 5-way post, black, 15A.

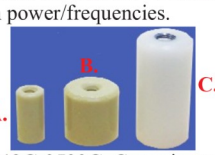
D. 606-0003. 5-way post, red, 15Amp.

HT Adapter Cables

Release the strain on your HT antenna connector with these adapter cables. SMA or BNC. Flexible, mini coax, 3 feet.
A. MFJ-5612S. SMA Male to SO-239 adapter cable.
B. MFJ-5612SF. Female SMA to SO-239
C. MFJ-5612B. BNC Male to SO-239 adapter cable.

Insulating Spacers

These spacers are used to properly isolate your dummy load resistor from the chassis. Withstands high power/frequencies.


A. B. C.

A. 719C-0500C. Ceramic spacer, 1/4"OD, 1/2" long, 6-32 threaded both ends.
B. 719C-0500C-2. Same as A except 1/2" OD.
C. 718D-1000. Delrin spacer, 1/2" dia. by 1" long, 8-32 threaded holes on both ends.

Cooling Fans and Blowers

High output box fans and blowers are ideal for cooling amplifiers.

A.

A. 410-3583. 80x80x38.5 mm, 1800 RPM, 28 CFM, 30 dBA noise level, sleeve bearing, 120 VAC, 60 Hz, w/ 14" wire lead.

B. 410-4584. Fan guide.

B.

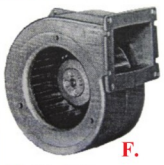
C. 410-3138, high quality box fan by EBM, metal housing with metal impeller, extremely quiet 120x120x38.5 mm, 61 CFM, 28 dBA noise level, sleeve bearing, 120 VAC, 60 Hz, wire terminals. Fits AL-80A/B.

C.

C. 410-3132. Like 410-3138, for 12VDC.

D. 410-4600, Metal *Fan Guards.*

E. 410-4586, plastic.


F.

F. 410-3737. EBM Blower, G2S097-DB 61-08, 110 VAC, 27 CFM, 38 dBA noise level. Wire leads. Flange mount 4 5/8Wx4 1/2H x 3/16D inches, fits AL-1500/1200/82 amplifiers.

Select MFJ hard-to-find Connectors, Plugs, Adaptors...

Fig.	Part No.	N/A	Description
A1	MFJ-7746		N Male Reverse to N Female Adaptor
B1	MFJ-7755		3/8-24 Female Coupler, 1 1/4 inch length
C1	MFJ-7760		BNC Male to BNC Female right angle
A	MFJ-7705		N-Male to SO-239 Adaptor
B	MFJ-7730		N-Male to SMA Female Adaptor
C	MFJ-7731		N-Male to BNC Female Adaptor
D	MFJ-7702		PL-259 to PL-259 Adaptor
E	MFJ-7703		PL-259 to BNC Female, Right Angle Adaptor
F	MFJ-7733		PL-259 to "T" SO-239 (2) Adaptor
G	MFJ-7734		PL-259 Right Angle Adaptor
H	MFJ-7732		PL-259 to RCA Phono Jack
I	MFJ-7727		PL-259 to SMA Female Adaptor
J	MFJ-7717		PL-259 to SMA Male Adaptor
K	MFJ-7737		PL-259 to BNC Female Adaptor
L	MFJ-7711		F Female to F Female Coupler, 1.75" length
M	MFJ-7701		SO-239 to SO-239 Coupler, 1.75" long.

Fig.	Part No.	N/A	Description
D1	MFJ-7761		BNC T-Adaptor, BNC Male and two BNC Females
E1	MFJ-7752		Nx3 Female T Coupler
F1	MFJ-7754		SO-239x3 T Coupler
N	MFJ-7719		SO-239 to SMA Male Adaptor
O	MFJ-7729		SO-239 to SMA Female Adaptor
P	MFJ-7708		SO-239 to BNC Male Adaptor
Q	MFJ-7716		BNC Male to SMA Female Adaptor
R	MFJ-7736		BNC Male to SMA Male Adaptor
S	MFJ-7718		BNC Female to SMA Male Adaptor
T	MFJ-7728		BNC Female to SMA Female Adaptor
U	MFJ-7706		NMO to SO-239 Adaptor
V	MFJ-7738		SO-239 to RCA Male or Motorola made plug
W	MFJ-7739		N-female to N-female Barrel Coupler, 1.75" long.
X	MFJ-7743		SMA Female to SMA Female Coupler, 5/8" length
Y	MFJ-7744		SO-239 to SO-239 Coupler, 1 inch length.
Z	MFJ-7745		Right Angle N Male to N female Adaptor

Fig.	Part No.	N/A	Description
1	MFJ-7707		NMO to 3/8x24 threaded Adaptor
2	MFJ-7710		3/8-24 to PL-259 Adaptor
3	MFJ-7725		3/8x24 Antenna Mount Quick Connect Adaptor
4	MFJ-7735		3/8x24 Antenna Mount Fold-Over Adaptor
5	MFJ-7714		3/8x24 Chassis Mount with insulating washer
6	MFJ-7748		SO-239 to 3/8x24 Male or Female adaptor
7	MFJ-7712		3/8x24 to .10 inch hole whip ferrules
8	MFJ-7715		3/8x24 to .20 inch hole whip ferrules
9	MFJ-7740		PL-259, *Teflon*(R), nickel plated
10	MFJ-7741		Coax Reducer for RG-58
10	MFJ-7742		Coax Reducer for RG-8X
11	MFJ-7721		SO-239 4-hole Chassis Mount *Teflon*™
12	MFJ-7720		SO-239 screw-on Protector cover, metal
13	MFJ-7723		N-Female 4-Hole Chassis Mount, *Teflon*™
14	MFJ-7722		SO-239 Single Hole Mount, *Teflon*R
15	MFJ-7726		BNC Female, Chassis Mount

Fig.	Part No.	N/A	Description
16	MFJ-7724		N-Female Single hole Mount, *Teflon*™
17	MFJ-7704		BNC to dual Binding Posts
18	MFJ-7709		Dual Banana Plugs, High Current
19	MFJ-7713		1 Red, 1 Black High Current Banana Plugs
20	MFJ-7700P		6 Red, 6 Black Banana Plugs / Pack
21	606-0014		5-Way Binding Post, Black, 30 Amps, insulated
22	606-0013		5-Way Binding Post, Red, 30A, insulated
23	606-0004		5-Way Binding Post, Black
24	606-0003		5-Way Binding Post, Red
25	606-1006		Feed-through Ceramic Insulator with hardware
26	MFJ-7750		Black PVC Protect Cap for SO-239 w/retaining strap
27	MFJ-11C06		35A *Anderson PowerPoles*™ (6prs) *Pg. 31, more info*
28	MFJ-7756		NMO protective cap, rigid, screw-on. Black.
29	MFJ-7758	(5-pk)	N/SO-239 Connector protective cap, soft black vinyl.

MFJ 2.4 GHz, WiFi Yagi Antenna

MFJ-1800

15 dB, 16-element WiFi Yagi antenna greatly extends range of 802.11b/g WiFi signals 32 times over an isotopic radiator. Turns unusable or slow WiFi into solid, fast connection. Highly directional, minimizes interfering signals. Works with 802.11b/g or 2.4 GHz device. Built-in *N-type* connector, tripod screw mount. Rear/bottom holes for wall or desk/shelf mounting. Use vertically/horizontally. Precision punched aluminum,18Wx2 3/4Hx1 1/4D", 2.9 oz.

WiFi Yagi Antenna-to-Computer Cable

MFJ-5606SR.
Reverse SMA male connector to N-male, 6-foot RG-174 coaxial line.

64 Feet, 11-Section Telescopic Aluminum Mast

MFJ-1965

This 11-section *multi-purpose* aluminum telescopic pole can be used for vertical antennas or as a mast, pictured right.

Use as a portable mast for field day and camping trips, temporary for emergency set-ups, or for permanent installation for wire antennas or for lightweight beams and vertical antennas.

MFJ-1965 is 64 feet fully extended so it can really get you up in the airwaves and just 6 feet fully collapsed (without clamps) so it can be handled easily while portable and stored in smaller locations.

Guying is required if the mast is extended beyond 30 feet, especially in a permanent situation. Top section is .625 inches OD, so can handle most antennas. Bottom section is a hefty 2" ODx.120 wall. 24 pounds.

Base Mount for Fiberglas and Aluminum Masts

MFJ-1900.
This MFJ-1900 complete base assembly kit includes the mounting plate, insulators, stainless steel hardware, SO-239 connector, etc. for MFJ fiberglass and aluminum mast permanent or temporary installations.

Fits up to 2.0 inches OD masts. It is the perfect companion for your 64-foot aluminum telescopic mast -- it will hold it steady and safely.

Just put a pipe in the ground, u-bolt the mast plate to it, and then u-bolt your mast to it and you got a steady station for your antennas.

Guy masts over thirty feet.

Genuine Hy-Gain Rotator Replacement Parts

Rotator Potentiometer

RPM-1

Fits Hy-gain T2X, HAM-II, III, IV, V, and CD45II Hy-gain rotators. Has silver plated contact point that makes for smooth traveling, longer lasting and more reliable contact between pot strip, wiper arm.
RPM-1. 500 Ohms, for most Hy-gain rotators.
RPM-2. Like RPM-1, 1000 Ohms for AR-40.

Silver plated Contact Point

5-Second Brake Delay Kit

RBD-5

Allows automatic 5-seconds brake delay for Hy-Gain rotators. This insures that rotator is fully stopped before brake is engaged. Avoid accidentally engaging the brake while the rotator is in motion. Use with HAM-II, HAM-III, HAM-IV, HAM-V, and T2X. Easy to install inside controller. Includes pre-assembled PCB, mounting hardware.

Motor Capacitors/Meters/Fuses

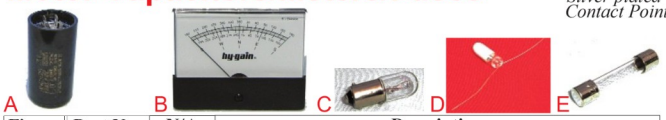


Figure	Part No.	N/A	Description
A	5151501		Motor start Capacitor for CD45, HAM-II, III, IV, V, T2X
B	5147702		Panel meter for CD45/HAM-IV, T2X with "North" scale. Uses external meter lamp.
B	400-2678L		Meter with internal LED lamp for "Plus" series CD45, HAM-IV, T2X, had "North" scale.
C	5089501		Incandescent light bulbs, 28 V for controller with external meter lamp. Bayonet base.
D	355-2678		Incandescent light bulbs, 28 V, for "Plus" controller meter with built-in lamp.
E	5056300		1/8 Amp meter circuit fuse. For CD-45, HAMIV, T2X.
E	755-0103 (1034403)		For HAM-III, HAM-IV, T2X, 3 Amp power fuse for CD45, Ham-II, III, IV, V, T2X

Rotator Connectors

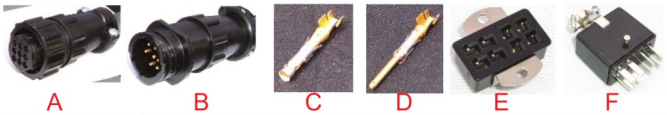


Figure	Part No.	N/A	Description
A	870597		8-Pin Amp Circular Female Connector Kit (connector shell and 8 female pin) for T2X.
B	870596		8-Pin Amp Circular Male Connector Kit (connector male and 8 male pin) for T2X.
C	650082		Amp Circular Connector Female Pin
D	650083		Amp Circular Connector Male Pin
E	640076		Rotator Controller Chassis Mount Female 8-Pin Jones.
F	640077		Rotator Controller 8-Pin Male Jones Chassis Plug.

Terminal board & Pigtail cable conversion kits

Figure	Part No.	N/A	Description
A	5146510		8-screw terminal board. Fits CD-45II, HAM-II, HAM-III, HAM-IV and T-2X. Also replaces 4 screws terminal board for AR-40.
B	870852		8-Pin AMP circular connector cable conversion kit. Convert 8-Pin terminal board to 8-Pin AMP water tight circular connectors cable assembly. Easy, detachable, Secured twist-and-lock. Fits CD-45II, HAM-II, HAM-III, HAM-IV and T-2X.

Rotator Cables & Mast Supports

Figure	Part No.	N/A	Description
A	878-1608		8 conductors PVC cable, 6 conductors 18 AWG plus 2 conductors 16 AWG. For Hy-gain rotator with 8 wire connections.
A	878-2004		4 Conductors, 20 AWG, PVC cable for Hy-gain AR303/500 and Alfa rotators.
B	13-8075-T2 13-8100-T2 13-8125-T2 13-8150-T2	(75') (100') (125') (150')	Pre-assembled cable for T2X. Wired one end with Jones male connector and one end with AMP circular female. Water tight connectors with Twist-and-lock for secure connection. Other lengths not listed are available.
B	13-8006-T2		Bench Test Cable for T2X. 6 ft. pre-wired assembly. 8 pin Jones male to 8 pin AMP female.
C	MSHD		Heavy duty mast support for T2X, HAM-IV, HAM-V. Accepts $1^{7}/_{8}$-$2^{5}/_{8}$" OD. Centers on $2^{1}/_{2}$"
D	MSLD		Light duty mast support for CD-45II, AR-40. Accepts $1^{7}/_{8}$-$2^{5}/_{8}$" OD. Centers on $2^{1}/_{2}$".

Rotator Mast Plates and U-Bolts

Figure	Part No.	N/A	Description
A	5011500		Mast Mounting plate for HAM-IV, 3/16" Zinc plated steel.
A	5137000		Mast mounting plate for T2X, 3/16" Zinc plated steel.
B	5011800		Mast mounting plate for CD45II/AR40. 3/16" Aluminum.
C	5141610		HAM-IV (2 sets) U-bolt with nuts, lock washers, stainless.
C	5142310		T2X (2 sets) U-bolt with nuts, lock washers, Stainless.
C	5042610		CD45II & AR40 (4 sets) U-bolt with nuts, lock washers, Zinc plated steel.
D	5141510		HAM-IV Rotator mounting kit, complete with mast plate, 2 sets U-bolts, nuts & bolts, 4 each tower mounting bolts.
E	5142210		T2X Rotator mounting kit: mast plate, 2 sets U-bolts, nuts and bolts, 6 each tower mounting bolts.
F	5042510		CD-45II, AR40 Rotator mounting kit: mast plate, 4 sets U-bolts, nuts and bolts, 4 each tower mounting bolts.
G	5142510		T2X rotator to tower stainless mounting bolts/washers (6).
H	5141810		HAM/CD45/AR40 rotor to tower mounting bolts/washers (4).
I	5105700		Rotator bottom casting to top bell housing mounting bolts.

Ball Bearings/Shim/Brake Wedges/Low Temp Grease

Figure	Part No.	N/A	Description
A	5033502		Ball Bearings (50 pack)
B	5011300		Ball Bearing Retainer, 49 slots. Require 2 pieces for HAM-IV, CD-45II and 3 pieces for T2X.
A+B	5131000		Kit includes one bearing retainer and 50 ball bearings. Requires 2 kits for HAMs, CD45II & AR40 and 3 kits for T2X.
C	5039700		Rotator Bottom Shim for HAMIV.
D	380828		Brake Wedge for all HAM rotators. Stainless steel.
D	5151401		Brake Wedge for T2X. Stainless steel.
E	5149710		Low Temperature Rotator Lubricant, 1 ounce.

Motors/Ring Gears/Gears/Solenoid

Figure	Part No.	N/A	Description
A	5037406		Rotator Motor CD-45II and AR-40.
A	5137600		Rotator Motor for HAM-IV and T2X.
B	5009900		Brake Solenoid for HAM-IV and T2X.
C	5136101		Ring Gear, Steel, for HAM-IV and T2X.
C	5031310		Ring Gear, Aluminum cast for CD-45II and AR-40.
D	5008410		Limit Switch Assembly for all Hy-Gain Rotators.
E	5010700-1		Spur Gear, Stainless Steel, HAM-IV, T2X, Require 2 per rotator.
F	5011200-1		Gear/Pinion Assembly, Stainless Steel, has short pinion, HAM-IV, T2X, Require 3 per rotator.
G	5011100-1		Gear/Pinion Assembly, Stainless steel, has long pinion, HAM-IV, T2X. Require 1 per rotator.

Replacement Rotator and Controllers

Figure	Part No.	N/A	Description
A	HAM-IVC		HAM-II, III, IV & T2X Controller. Supplied with 8-pin Jones male chassis mating connector. 110 VAC.
A	CD-45IIC		CD-45II Controller. Supplied with 8-pin Jones male chassis mating connector. 110 VAC.
B	AR-40C		AR-40 Controller, 110 VAC.
C	HAM-IVR		HAM-II, III, IV Rotator with Amp male plug. Complete with mounting kits, (5141510).
D	T-2XR		T2X Rotator with AMP circular male connector. Complete with mounting kit (5142210).
E	CD-45IIR		CD-45II Rotator with 8-pin terminal board. Complete with mounting kit (5042510) Lower mast support not included.
F	AR-40R		AR-40 Rotator. Complete with mounting kit (5042510). Lower mast support not included.

Hy-Gain can repair or rebuild your rotator.
Call Hy-Gain for quote & other replacement parts not listed.

ROHN ™ Steel Telescopic Masts & Vertical Mounting Accessories

20/30/40/50 foot Telescoping Masts

Telescoping masts are pre-galvanized and come pre-assembled with hardware. Erecting mast is made by simply connecting guys and brackets to the attached heavy duty rolled edge guy rings and clamps, extending the sections, inserting locking cotter pins, rotating tubes to locked position and tightening the clamps. Features interior tube flanging combined with double-crimped exterior tube to produce stronger, more stable joint than common masts. Also prevents sections from accidentally pulling apart and allows easy disassembly, pulling each section through lower end. Each section extends deeper into lower tubes than other designs, adding more structure stability. 1 ¼", 16-gauge galvanized tubing for top, others are 18 gauge.

H-20. 19 feet extended, 2 sections.
H-30. 28 feet extended, 3 sections.
H-40. 36 feet extended, 4 sections.
H-50. 44 feet extended, 5 sections.
All above models ship by truck only.
H-950. 34' ext., 5 section, truck ship.

Deluxe "Y" Wall Mount Bracket

WMD-12. 12" standoff with 3rd Leg for mounting of Antenna Masts from 1 inch to 1.75 diameter and up to 10 foot Height, Standoff from Wall by 12 inches.

48" Galvanized Eave Mount Bracket

EVE-48. Mount your mast on eave of a house. Lower Bracket is 16 gauge Hot Dip Galvanized steel, 48". Both upper/lower brackets are for masts up to 2 ¼" diameter with clamps, bolts and 2 ½" lag screws. Will stand-off mast 2 ¼" from surface.

Antenna Mast Chimney Mount

EZ-29. Four inch Stand-off, Deluxe "Y" with 18 Feet of Stainless Steel Straps to Wrap around Chimney.

5 Foot Galvanized Mounting Pipe

HG-5. 5 foot, 2" OD, 16 AWG Galvanized steel Antenna Mast Pipe.

Hy-gain Vertical Antenna Mounting Hardware

A. 463011, Base tube insulator, fits 1 ¼" OD tube. Six 5/16" mounting holes. Super strong, made of fiberglass filled ABS. Used in Hy-tower to isolate legs from ground. Tube not included.

B. 877130, Vertical antenna bracket assembly. Includes bracket (C), base cover insulator (D), support insulator (E) and SO-239. Tube not included. Fits 1 ¼".

C. 160043-1, Base mount bracket. Custom-tooled ⅛" thick x 12 inch length aluminum bracket with vertical ridges for super strength. Pre-punched holes for SO-239 or N-connector.

D. 863427, Base cover insulator. Allows attachment of base tube. Has hollow center for antenna connector. Mold-in pin connects base tubing to connector.

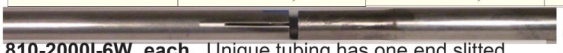
463056, Base antenna support insulator. Made to fit top support of antenna bracket (C). Fits 1 ¼" OD.

F. 460316, Tubing coupler and insulator. Used to couple or insulate one inch tube to ⅞" tubing. Made of fiberglass filled ABS, 5 inches long.

Hy-gain Aluminum Tubing

6063 T832 round, drawn aluminum tubing sold in 2 styles: ***standard*** or ***slitted*** *one end, (.083" gaps, 1-2" slit lengths*). Available in 3 or 6 ft. lenghts. Tubing is sized to allow telescoping into one another from 3/8"-2 ½" OD. Select *slitted* for telescoping. Use Hy-gain hose clamps to secure.

6' Lg OD x Wall x ID	P/N No slit, N/A	P/N Slitted N/A	Add ft.
0.375"x.058"x0.250"	810-0375E-6U	810-0375E-6S	
0.500"x.058"x0.375"	810-0500E-6U	810-0500E-6S	
0.625"x.058"x0.555"	810-0625E-6U,	810-0625E-6S,	
0.750"x.058"x0.634"	810-0750E-6U,	810-0750E-6S,	
0.875"x.058"x0.759"	810-0875E-6U,	810-0875E-6S,	
1.000"x.058"x0.884"	810-1000E-6U,	810-1000E-6S,	
1.125"x.058"x1.009"	810-1125E-6U,	810-1125E-6S,	
1.250"x.058"x1.134"	810-1250E-6U,	810-1250E-6S,	
1.375"x.058"x1.259"	810-1375E-6U,	810-1375E-6S,	
1.500"x.058"x1.384"	810-1500E-6U,	810-1500E-6S,	
1.625"x.058"x1.509"	810-1625E-6U,	810-1625E-6S,	
1.750"x.058"x1.634"	810-1750E-6U,	810-1750E-6S,	
1.875"x.058"x1.751"	810-1875E-6U,	810-1875E-6S,	
2.000"x.058"x1.884"	810-2000E-6U,	810-2000E-6S,	
2.000"x.120"x1.760"	810-2000I-6U,	810-2000I-6S,	
2.125"x.058"x2.009"	810-2125E-6U,	810-2125E-6S,	
2.375"x.058"x2.259"	810-2375E-6U	810-2375E-6S,	
2.500"x.058"x2.384"	810-2500E-6U,	810-2500E-6S,	
3'Lg OD x Wall x ID	**P/N No Slit, N/A**	**P/N Slitted N/A**	**Add ft.**
0.375"x.058"x0.250"	810-0375E-3U,	810-0375E-3S,	
0.500"x0.58"x0.375"	810-0500E-3U,	810-0500E-3S,	
0.625"x.058"x0.555"	810-0625E-3U,	810-0625E-3S,	
0.750"x.058"x0.624"	810-0750E-3U,	810-0750E-3S,	
0.875"x.058"x0.759"	810-0875E-3U,	810-0875E-3S,	
1.000"x.058"x0.884"	810-1000E-3U,	810-1000E-3S,	
1.125"x.058"x1.009"	810-1125E-3U,	810-1125E-3S,	
1.250"x.058"x1.134"	810-1250E-3U,	810-1250E-3S,	
1.375"x.058"x1.259"	810-1375E-3U,	810-1375E-3S,	
1.500"x.058"x1.384"	810-1500E-3U,	810-1500E-3S,	
1.625"x.058"x1.509"	810-1625E-3U,	810-1625E-3S,	
1.750"x.058"x1.634"	810-1750E-3U,	810-1750E-3S,	
1.875"x.058"x1.751"	810-1875E-3U,	810-1875E-3S,	
2.000"x.058"x1.884"	810-2000E-3U,	810-2000E-3S,	
2.000'x.120"x1.760"	810-2000I-3U,	810-2000I-3S,	
2.125"x.058"x2.009"	810-2125E-3U,	810-2125E-3S,	
2.375"x.058"x2.259"	810-2375E-3U,	810-2375E-3S,	
2.500"x.058"x2.384"	810-2500E-3U,	810-2500E-3S,	

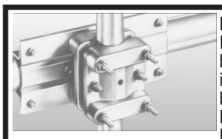


810-2000I-6W, each. Unique tubing has one end slitted and one end swaged for stacking. Join two to make longer poles. Secure with standard hose clamp. Strong, 2"OD x .120' wall. Good for base sections of verticals. Standard 6-ft. length, longer sections, to 20 ft. available. Add each add'l foot.
All tubing UPS Shippable. Call for quote.

MFJ Telescopic Fiberglass Tubing

Super-strong, heavy duty telescoping sections, .125 inch thick wall fiberglass

Size OD"	Part Number	6 ft.	6 ft. slit	Part Number	7.75 ft.	7¾' slit
1/2"	884-40500-6(S)			884-40500-775(S)		
3/4"	884-40750-6(S)			884-40750-775(S)		
1"	884-41000-6(S)			884-41000-775(S)		
1¼"	884-41250-6(S)			884-41250-775(S)		
1½"	884-41500-6(S)			884-41500-775(S)		
1¾"	884-41750-6(S)			884-41750-775(S)		
2"	884-42000-6(S)			884-42000-775(S)		
2¼"	884-42250-6(S)			884-42250-775(S)		
2½"	884-42500-6(S)			884-42500-775(S)		



BMC-249. ***Boom to Mast Clamp***
Heavy duty 1 ¼" OD thick aluminum die casted boom to mast clamp designed specifically for securing heavy antennas. It is capable of supporting 2" boom antennas, such as the TH-11DX, Long John Monobanders and other beams with a 2" boom. The BMC-249 allows mast to extend past the top of the clamp. This feature allows stacking of several antennas on one mast. Clamp is adjustable for mast sizes from 1 ¼" to 2¾" OD. Tilt-over feature permits easy assembly of elements, simplifies maintenance of antenna. 4Wx4Hx1 ¼" thick. Kit comes complete with stainless steel hardware.

Element Insulators are made to fit the element bracket (right). Precision injection molded with black UV resisted ABS plastic.

Hy-gain TH-series HF Beam Trap Caps

Part No.	N/A	Fits these Element sizes	Insulator Size	Fits Element to boom clamp
465216		7/16" OD	7/8"OD x 2¾"	163409
461057		5/8" OD	1¼" OD x 3"	165919
463767		7/8" OD	1¼" OD x 3"	165919
465833		1¼" OD	1½" OD x 4"	165920

A. 464723, $.75 ea. Trap caps, for large Hy-gain TH-series traps.
B. 466221, $1.59 ea. Trap caps for Hy-gain TH-3Jr. traps.

Element to Boom Clamps

Hygain Stainless Steel Hose Clamps

Part No.	N/A	Description
745-3104S		#4 Clamp for 3./32" OD to 5/8" OD tubing
745-3106S		#6 Clamp for 3/4" OD to 7/8" OD tubing
745-3108S		#8 Clamp for 7/16" OD to 1" OD tubing
745-3110S		#10 Clamp for 1" OD to 1 1/8" OD tubing
745-3112S		#12 Clamp for 9/16" to 1/4" OD tubing
745-3116S		#16 Clamp for 1 1/4"OD to 1 7/8" OD tubing
745-3120S		#20 Clamp for 3/4" OD to 1 1/4" OD tubing
745-3128S		#28 Clamp for 1 5/8" OD to 2" OD tubing

High tensile strength aluminum alloy. Custom die stamps these clamps. No miss-drilled holes, fit perfect everytime. Required 2 clamps per element.

Part#	N/A	Boom OD"	Element OD w/o insulator	Element OD w/insulator	Description	Insulator
161409		2"	5/8"	---	2 1/2x7"x.08 Thick, #12	None
163764		2"	7/8"	7/16"	2 3/8x7 1/8"x.08 Thick, #4	465216
165919		2"	1 1/4"	5/8", 7/8"	3 1/4x7 1/4"x.125 Thick, #13	463767, 461057
165920		2"	1 1/2"	1 1/4"	3 1/4x9 1/2"x.125 Thick, #14	465833
160055		1 1/4"	7/16"	---	3/4x5"x.063 Thick, #0	None
161422		1 1/4"	5/8"	---	2 1/2x6 1/2"x.08 Thick, #11	None
165141		1 1/4"	7/8"	7/16"	2 5/16x6 5/8"x.08 Thick, #12	465216
165138		1 1/4"	1 1/4"	5/8", 7/8"	2 3/4x6 5/8"x.08 Thick, #1	463767, 461057
872223		Stainless steel screws, nuts and washers for 1 set of element-to-boom clamp				

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Ameritron HF+6 1200W Solid State Amplifier

1.5-54 MHz . . . 1200 Watts PEP Output, Instant Automatic bandswitching, no tuning ... no warm-up, SWR protected, Quiet Variable-Speed Cooling . . . PEP FWD/REF Metering . . . PA Balance /ALC Metering and LED Indicator . . . Front Panel Band/Error LEDs . . . more!

ALS-1306

Ameritron's ALS-1306 is a 1.5-54 MHz solid state near legal limit™ FET no-tune Amplifier -- get 1200 Watts PEP output on all bands, including 6-Meters. Instant automatic bandswitching! No tuning, warm-up or tubes to baby, no fuss!

ALS-1306 reliability is insured by using *8 rugged MRF-150 power FETs*. They are mounted on the dual heavy duty heat sink and properly arranged to spread out the heat over a large surface. This is something that other amplifiers using a single power device cannot do. *Some* FETs actually are a package of several transistors in one large case. This concentrates heat in one small package. They not only are more difficult to cool, if one transistor fails, they all have to be replaced.

ALS-1306 RF deck operates at 50 Volts for efficient, low distortion linear RF power. It's cooled by a whisper quiet cooling fan. Fan speed is regulated by temperature sensors, assuring minimum noise for adequate cooling.

1200 Watts SSB Output Power Covers 1.5-54 MHz (HF+ 6 Meters!)

ALS-1306 runs up to 1200 Watts of clean SSB output power (just 100 Watts drive gives you the full rated 1200 Watts output) for continuous coverage between 1.5-54 MHz. 10/12 Meters is already included.

Operator-friendly layout fits nearly any station configuration. Attractive desktop amplifier weighs only 22 lbs. Compact 10Wx6½Hx18½D inches.

SWR Protection prevents amplifier damage if you switch to a wrong band, use the wrong antenna or have a high SWR. Over-power protection enables if output forward power or reflected power exceeds a safe level.

Output power is automatically reduced to prevent amplifier damage by controlling ALC to exciter.

LED-illuminated Cross-Needle SWR/Wattmeter reads SWR, forward and reflected *peak* power simultaneously. You also get ALC, SWR, PA balance and current metering with LED backlight. An Operate/ Standby switch lets you run "barefoot", but you can *instantly* switch to full power if needed.

Front-panel ALC control!

Exclusive Ameritron feature lets you adjust output power on the convenient front panel. Get front panel operation, band/error LED indicators like reflected power and switch errors.

Automatic Bandswitching!

Put your amplifier and power supply out-of-the-way! Control your amplifier directly from your rig!

ALS-1306 automatic band switching capability reads band data from your transceiver and automatically changes bands as you make transceiver adjustments. An optional interface cable is required for your particular radio.

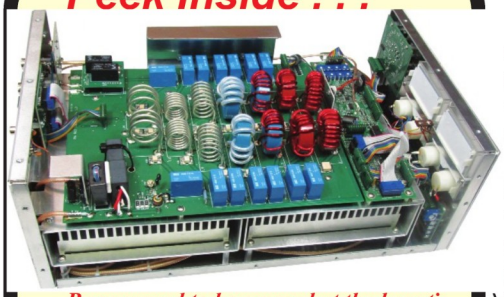
Clean, Modular Construction

Unlike other solid state amplifier designs that are packed so tightly they are un-serviceable, the ALS-1306 construction is super-clean with *easy-service* modular construction.

ALS-1306 Power Supply

Powered by a 50 VDC switching ower supply. Comes with a pre-wired able to plug into the ALS-1306. *Hash-ee* fully regulated swtiching power supply is only 12 pounds and meas-ures a compact 0Wx6½Hx9½D". 'lace it conveniently ut-of-the-way at your tation. Output is 50 VDC at 50 Amps to the ALS-1306. Wired for 220 VAC, selectable to 110 VAC. Draws less than 25 Amps at 110 VAC; 12A @220 VAC.

Peek Inside . . .



Be prepared to be amazed at the beautiful workmanship of this finely crafted piece of electronic art! It's another beautiful, yet powerful Ameritron Amplifier!

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